

# ADMINISTRATION REPORT

OF THE

PUBLIC HEALTH DEPARTMENT OF THE CITY  
OF PORT-OF-SPAIN

FOR THE YEAR

1951

BY

DR. RODERICK MARCANO, O.B.E., M.D. (Lond.), M.R.C.P. (Lond.), D.P.H. (Lond.)  
MEDICAL OFFICER OF HEALTH



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Local Authority in the Urban Sanitary District of the  
City of Port-of-Spain

1950-51

THE CITY COUNCIL

HIS WORSHIP THE MAYOR, COUNCILLOR RAYMOND HAMEL-SMITH, J.P.

*Deputy Mayor :*

HON. RAYMOND QUEVEDO

*Aldermen*

T. FRANKLYN

R. MITCHELL

C. WARD

HON. A. JAMES

HON. RANJIT KUMAR

*Councillors :*

H. CHRYSOSTOM

B. I. LALSINGH

H. M. COOK

M. LEE LUNG

G. CABRAL

C. B. MATHURA

C. Y. FLETCHER

Q. O'CONNOR

J. HERRERA

I. SARKAR

J. PACKER HUTCHINSON

L. SIMPSON

SYLVIA HUNT

**Administration Report of the Public Health Department of the City of  
Port-of-Spain. Year 1951**

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PUBLIC HEALTH DEPARTMENT  
35, FREDERICK STREET  
PORT-OF-SPAIN  
TRINIDAD, B.W.I.

24th October, 1952

URBAN SANITARY DISTRICT OF THE CITY OF PORT-OF-SPAIN

SECRETARY, LOCAL AUTHORITY,

SIR,

I have the honour to submit, for the information of the Local Authority, the Annual Report on the Health and Sanitary condition of the Urban Sanitary District of the City of Port-of-Spain for the year ended 31st December, 1951.

The state of the public health during the year 1951 can be stated to be, on the whole, satisfactory without any spectacular achievement to record.

Briefly, it may be said that the position gained during the previous few years continued to be consolidated and whilst improvement in the figures recorded has been, with few exceptions, general, improvement has been very slight indeed when compared with the figures for the preceding year 1950.

No untoward event of any kind occurred during the year 1951 to disturb the even tenor of the work of the Public Health Department and all the various services were maintained at a satisfactory level.

The Estimates were again approved far too late in the year to permit full advantage to be taken of the various sums of money which were voted for the improvement of the various services, for the obtaining of new equipment, and for the ordering of necessary supplies from abroad.

Happily, as I write, the position has improved considerably due to the fact that equipment and supplies ordered late in the year under review after the Estimates had been approved by the Legislature, arrived early in the current year, and the Estimates for the current year 1952, having been approved much earlier in the year, it has been possible to order and obtain much needed supplies of insecticides, disinfectants, rat poisons, rat traps, &c., &c., which are being used in intensifying and expanding the work of the Department.

If this Department is to keep abreast of the times and to justify the confidence placed in it, it must never develop the "habit" of standing still and of maintaining the *status quo*.

There must be continuous planning for progress and improvement and each year the services have to be critically analysed, expanded and where necessary modernised; the human material has to be kept on the alert, better trained and made more responsible; and some permanent and durable advance made by the construction of major works.

Speaking of major works there still remains in the Department a keen sense of disappointment that those major works of road construction and road widening, for the establishment of permanent comprehensive lines of drainage, for the extension of the sewerage system to the as yet unsewered portions of the City, for the relaying out of the whole East Dry River and Belmont Districts, for the provision of a sufficient water supply to each and every resident of the Urban Sanitary District, have yet to be undertaken, though there were signs at the end of the year under review that something was "happening" in that a survey of the East Dry River and Belmont Districts was in active progress, this being an indispensable preliminary to the drafting of a comprehensive plan for the construction of the major works referred to above.

The vital statistics of the Urban Sanitary District which appear in tabular form later on in this report, reveal a not unsatisfactory state of affairs in that, with but a few prominent exceptions, improvement has taken place under nearly every heading though, as I have stated before, that improvement has been very slight indeed.

The mean population for 1951 has been estimated to be 107,009 souls and the end of the year population, i.e., the population at the 31st December, 1951, 108,273 souls.

This represents an increase of 2,698 and 2,529 souls respectively on the corresponding figures for the previous year, and a natural increase of population of 2,739 as compared with 2,735, the figure for the previous year 1950.

The birth rate worked out at just a little over three times the death rate, the figures being 37.23 and 11.62 per 1,000 population respectively. These figures compare somewhat unfavourably with the corresponding figures 37.45 and 11.22 per 1,000 population for the previous year 1950.

The infant mortality rate showed a welcome, though not unexpected reduction, 41.95 per 1,000 live births as compared with 43.02 per 1,000 live births for the previous year 1950.

As regards specific diseases, except for diseases of the heart and blood vessels and pneumonia where an increase in the death rate has taken place, and in the case of tuberculosis where a decrease has taken place, the figures have remained at about the same level as they were last year.



Diseases of the heart and blood vessels showed a further increase, 2.95 per 1,000 population as compared with 2.64 per 1,000 population in the previous year, and the death rate for pneumonia rose to .75 per 1,000 population as compared with .52 per 1,000 population for the year 1950.

Pulmonary tuberculosis declined from a death rate of .53 per 1,000 population in 1950 to .25 per 1,000 population in 1951, and notifiable infectious diseases from 1.24 per 1,000 in 1950 to 1.13 per 1,000 in 1951.

Satisfactory as these figures are, it may be pointed out that much lower figures are being recorded in other cities of the same size and with the same population as Port-of-Spain, in temperate and even in some tropical climes, and a concentration of effort on major works of sanitation in the "backward" areas of the City and intensification and expansion of the work of the Department would go a long way towards reducing the mortality from the various diseases listed in the table of Vital Statistics which appears in the body of this report.

Again I express the hope, which I have done so often before, that a beginning will be made next year on the execution of those comprehensive schemes designed to rid the Eastern Districts of the City of the unenviable reputation of being the most insanitary, the most congested, and the most vulnerable, so far as health and happiness are concerned, of all the sub-districts of the City.

My sincere thanks are again due His Worship the Mayor, the Aldermen, and Councillors of the Local Sanitary Authority for their consistent support in all matters affecting the public health of the Urban Sanitary District and for their ready encouragement and active help in dealing with the various public health problems which presented themselves during the year under report.

The Local Authority is fully seized of the importance of maintaining a high standard of public health in the Urban Sanitary District and it can truly be said that nearly all the efforts of the Municipality in all their various aspects and their varied directions are geared to that end.

I take pleasure once more in recording the fact that the Town Clerk's and the City Engineer's Departments, co-operated to the full with the Public Health Department in all matters, and in all plans and projects needing their assistance and, if any success has been achieved during the year under review it is due in great measure to the valuable help and unfailing assistance given by those two Departments.

For this I am deeply grateful to the Town Clerk and the City Engineer.

I have the honour to be,

Sir,

Your obedient servant,

RODERICK MARCANO  
*Medical Officer of Health*

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## NATURAL AND SOCIAL CONDITIONS OF THE DISTRICT

No new development under this heading can be recorded in the year under review and the position remains the same as was detailed in the report for the year 1950.

The size of the City remains the same at 2,550 acres but the population continued to grow both by natural increase and by the influx of new residents who come in from the rural districts to settle down in the City, often in search of employment.

No major works of any kind were undertaken, and Slum Clearance which had such a bright start and which was responsible for transforming the barrack-ridden areas of the eastern and southern parts of the City into a sanitary residential area dotted with two-storey and three-storey flats came to a sudden standstill due, it was stated, to lack of funds with which to continue the clearance.

The result was that the buildings in the declared slum clearance areas continued to deteriorate, and many of them were in such bad condition that as soon as they were vacated they had to be destroyed, leaving the area bare and destitute to be overrun by goats and other domestic animals and to be used as a dump for the refuse of the neighbourhood.

In spite of numerous reminders that the problem was getting intractable, Shanty Town both inside the City and in the adjoining area outside the City continued to grow with the inevitable hazards to health and safety that such uncontrolled growth entails.

The Mucurapo Lands and those to the immediate west of the Mucurapo Pumping Station still remained undeveloped and the building lots which were likely to accrue from the laying out of these areas still remained just a plan on paper.



Work on the Maraval River continued, a project which is being executed by the Works and Hydraulics Department of Government; the Mucurapo Bridge has been completed and is now open to traffic; the banks of the Maraval River adjoining this Bridge which were crumbling and threatening the foundations of the buildings in the immediate vicinity, Fatima College particularly, have been buttressed and the buildings can now be considered secure.

At the moment I write work is progressing satisfactorily on the Tragarete Road Bridge—another project that is being executed by the Works and Hydraulics Department of Government in keeping with the des Forges and Imrie Report—and it will not be long before that bridge is completely reconstructed on a wider and more secure base and opened to vehicular and pedestrian traffic.

The widening of the Eastern Main Road and of South Quay which was in active progress at the time I was writing the report for 1950 is now an accomplished fact and the drainage problem has been tackled with a certain degree of success.

There still remains the John John and the East Dry River areas where sanitary conditions, because of the overcrowding and congestion, of the unsatisfactory cesspit system, and of the general poverty of the residents, continue to deteriorate and where major works of drainage, road widening, sewerage, and relaying out of lots, cry aloud for immediate execution.

How long it will be before something in the nature of comprehensive works is done for these areas is difficult to tell but there has never been a time during the last fifteen years when it was so urgent as at the present moment.

## SANITARY CIRCUMSTANCES

### Water

The sources of water supply to the Urban Sanitary District remained the same, four river and four well sources, as has been the case for the past five years.

A satisfactory supply of potable water was maintained throughout the year with the customary fluctuations in volume dependent on the dry season in the first half of the year and the floodings of the river sources which take place during the heavy rains in the second half of the year.

Eighty-six (86) per cent. of the samples taken was found to be “safe,” leaving fourteen (14) per cent. “unsafe” and needing further investigation and eventually, if found necessary, an increase in the amount of sterilising chemical which, in the case of the Council’s supply, is chlorine gas.

There can be no question, however, but that the water supply of the City leaves much to be desired and while it can be stated with accuracy that a potable and satisfactory supply is maintained throughout the year yet this is achieved at a greater cost than should be necessary and not without many anxious moments.

What is needed is a supply of much greater initial purity from a catchment area liable to much less pollution than the existing river sources of Maraval, St. Ann’s, and Cascade are subject to at the moment.

These catchment areas are getting more and more built upon and cultivated and it is becoming increasingly difficult to stop unauthorised dwellings and kitchen gardens in these areas in view of the shortage of living accommodation and of essential foodstuffs that now obtains.

The result is that more sterilising chemical is becoming necessary and slower filtration is imperative if a potable supply is to be obtained.

The well sources continue to yield a water which is eminently satisfactory and which needs hardly any chlorination at all, though a small amount is added to guard against any pollution that is likely to take place in the distribution system.

These wells, however, need cleaning and the shallow wells need deepening as I have stated quite often in previous reports. It is clear to all who have to deal with water supplies that no great reliance can be placed on shallow wells and because of this fact a greater residual of sterilising chemical has to be maintained at these well sources than would otherwise be the case.

Happily at the moment I write the work of cleaning these well sources, which, in the main, are situated at Cocorite, is about to be overtaken.

Nothing has yet been done to the Distribution System of the Waterworks which is admitted on all sides to be on the old side, having been laid down over fifty years ago and in regard to which suspicion is rife that leaks occur with the consequent inevitable sucking in of pollution.

The time is ripe for a general overhaul of the whole water supply of the City with a view to securing a more liberal provision for each and every citizen, and a raw product of greater initial purity which will obviate the necessity for more than the smallest amount of chlorine.

Bacteriological Examination of Water Supply—1951

WHERE DERIVED	No. of Samples taken	RESULTS OF EXAMINATION	
		Safe	Unsafe (Presumptive B) Coli present)
* Cocorite (Wells) ... ..	137	124	13
* Diego Martin (Wells) ... ..	46	39	7
† St. Clair Pumping Station ... ..	44	43	1
‡ St. Clair Wells (untreated) ... ..	2	—	2
‡ St. Clair Wells (treated) ... ..	13	12	1
† Maraval (River) ... ..	50	48	2
§ Cascade (River) ... ..	49	39	10
§ St. Ann's (River) ... ..	48	41	7
Queen's Park Savannah Well (untreated)	34	32	2
Picton Reservoir (unchlorinated) ... ..	119	73	46
Colonial Hospital (Tap) ... ..	45	44	1
¶ 143, Charlotte Street (Tap) ... Quare River	44	43	1
¶ 133, Henry Street (Tap) ... Supply	47	46	1
Microbiological Instituto (Tap) ... ..	50	50	—
City Proper (Taps) ... ..	73	73	—
East Dry River (Taps) ... ..	43	36	7
Bolmont (Taps) ... ..	44	36	8
Woodbrook (Taps) ... ..	31	30	1
St. James (Taps) ... ..	57	54	3
St. Clair (Taps) ... ..	15	15	—
St. Ann's (Taps) ... ..	—	—	—
WELLS ON PRIVATE PROPERTY:—			
Wrightson Road (unchlorinated) ... ..	46	40	6
**84, Marine Square ... ..	24	—	24
**Sea Lots ... ..	2	—	2
**Richmond Street ... ..	67	67	—
**Charles Street ... ..	—	—	—
**Ajax Street ... ..	53	38	15
3, Ariapita Avenue (unchlorinated) ... ..	44	34	10
TOTAL ... ..	1,227	1,057	170

Standard of Purity : Presumptive B. Coli absent in 100 c.c.

- \* Chlorinated, not filtered.
- † Filtered after Chlorination.
- ‡ Chlorinated before distribution.
- § Filtered before Chlorination.
- || Filtered before Chloramination.
- ¶ Chlorinated after having been filtered and chloraminated.
- \*\* Not used for drinking purposes

Chemical Examination of Water

Samples examined by Government Chemist—1951

WHERE DERIVED	No. of samples examined	No. of samples found safe
Picton Reservoir ... ..	38	38
Maraval Roservoir ... ..	12	12
Cascade Reservoir ... ..	10	10
St. Ann's Reservoir ... ..	10	10
Cocorite Pumping Station ... ..	13	13
Do. do. (for salinity) ... ..	191	191
Diego Martin Pumping Station ... ..	12	12
St. Clair Wells ... ..	5	5
Queen's Park Savannah Well ... ..	7	7
Abattoir Well ... ..	2	2
TOTAL ... ..	300	300

Drainage and Sewerage

Except for the widening of the Eastern Main Road and South Quay with the consequent amelioration of the drainage problems which were a recurring decimal at this particular point in the eastern section of the City each year in the wet season, and the completion of the Mucurapo Bridge over the Maraval River, no major works of drainage have been undertaken during the year under review.

There is urgent need, however, for such works particularly in the St. James and Cocorite areas, especially the latter where floodings of streets and premises take place with monotonous regularity during the wet season damaging the foundations and even the floors of houses and causing the loss of poultry and other livestock.

In the East Dry River District these floodings are often a cause of nuisance, cesspits being invaded and their contents scattered in yards and streets to the great annoyance and inconvenience of residents.



The sewerage of the Belmont and East Dry River Districts has been so often referred to that perhaps silence in regard to this matter in this year's report might lead more expeditiously to the undertaking of these major works of sewerage and to the extension of the Mucurapo Pumping Station and the installation of the sewerage treatment plant which was bought from the Americans via Garcia Commercial Incorporated.

In spite of the specific recommendation which was made in a joint report by the technical officers of the Corporation that this latter plant be installed and put into use within a year of its purchase, at the moment I write, it still lies partly at the Mucurapo Pumping Station and partly at Waller Field undergoing the deterioration that we feared would take place, if left unused and unattended to.

### Scavenging and House Refuse

The scavenging of the Urban Sanitary District continued on the same scale during the year under report as in previous years.

I think it is true to say that the City as a whole presents a clean, sanitary, and well kept appearance.

Except for gaps here and there the scavengers do a good job and pull their weight quite successfully. When consideration is given to the fact that the bulk of this work has to be done at night and in the early morning before the business of the day actually begins and that underground scavenging is as important as surface scavenging in view of the large number of underground drains, culverts, bridges, &c., which have to be cleansed and flushed out at regular intervals, if not every day, it is clear that this work of scavenging and refuse removal is one of paramount importance apart altogether from the immediate danger to the public health of the City that inefficient performance entails.

It is, therefore, a cause for great satisfaction that the scavengers do realise their responsibility and perform their duties in a satisfactory way.

That does not mean to say, however, that all is well in every particular and that there is no room for improvement.

There still remain serious gaps which should be closed at the earliest possible opportunity. I shall not feel content until scavenging on Sundays is undertaken on a much wider scale than at present and it would be ideal if the whole City could be scavenged on Sundays as on other week days.

The sub-districts of the City do not present the same clean and attractive appearance as the City proper, and the East Dry River is the greatest sufferer in this respect.

Full dustbins and heaps of refuse are a common sight in these areas on Sundays and it would appear that great delight is taken by some of the residents in adding to these unsightly and highly insanitary accumulations which have to wait until the Monday to be cleared.

The hilly areas on the outskirts of the City proper also suffer from inefficient and insufficient scavenging because of the need for an efficient day-to-day and house-to-house system of collecting or disposing of refuse.

It is true that the female scavengers do their best by loading their "bath pans" and heading them down the hills to certain strategic points where they are deposited and subsequently picked up by the scavenging trucks and carts in the course of their daily rounds. This system works well enough but it is not uncommon to see large accumulations of refuse left behind for the rest of the day and night until the carts and trucks begin their daily round the following morning, due essentially to the lack of co-ordination and co-operation between the female scavengers and the carters and truck drivers.

The collection of house refuse from the various dwellings and business places of the City is satisfactory enough, though not enough advantage is taken of the recent change of hours whereby the collection of refuse by the carts and trucks continues for one hour later than heretofore, i.e., in the words of the amended bye-law "not later than 8 o'clock in the morning" instead of "not later than 7 o'clock in the morning", as it was before.

Quite a large number of dustbins are still being deposited at the edge of the footpaths late at nights only to be knocked over and sorted out by stray dogs in search of bones and other articles of food, creating thereby a most disgusting spectacle to the occupier as well as to the passer-by.

These dustbins could easily be deposited "within the gateway" early in the morning, whence they would be picked up and emptied by the scavengers before eight o'clock in the morning in keeping with the bye-laws.

### The Eastern Dump

The Eastern Dump remains at the moment the sole repository of refuse from not only the entire City but also from the adjoining areas of Laventille, Maraval, St. Ann's and Cocorite.

It is being slowly but surely filled in and very little space will soon now be left for further dumping and reclamation. Consequently it is not too early to begin to look for alternative sites on which to dump or to think of alternative methods of refuse disposal.

The sanitary state of this Dump can only be described as most unsatisfactory due almost entirely to the fact that uncontrolled tipping is being practised in spite of numerous requests that tipping should be controlled.



No Dump can ever be kept in a sanitary state if indiscriminate dumping of all kinds of refuse is resorted to without any attempt being made at control on modern scientific lines. At one moment dumping is taking place in the centre of the Dump, at the next at the edge; no attempt is ever made to sort the refuse, and still less to level or spread it out evenly.

There is here, as I have stated before, urgent need for proper sanitary control.

The Dump should immediately be levelled and compressed by a bulldozer; a straight, level, hard and firm road with terminal branches to the advancing edge of the Dump constructed; and a liberal supply of earth and/or sawdust provided for covering the refuse as soon as it has been dumped. Each and every load of refuse should be deposited at the very edge of the advancing dump and the rectangular deposit immediately covered over with a six to nine inch layer of earth or saw dust.

It is sincerely to be hoped that this very necessary and absolutely indispensable piece of work will be undertaken forthwith, and what is now a troublesome eyesore converted into a level, pleasant, and sanitary area on which vegetable crops can be grown in the more solid and older portions.

## SANITARY INSPECTION OF THE DISTRICT

### Premises and Occupations Controlled by Bye-laws and Regulations

#### Food

The work of the Department directed to the securing of good, clean, and wholesome food continued unabated during the year under report with varying success but with a general all round improvement which, in view of the difficulties and problems associated with this work, must be considered satisfactory.

Food handlers of all kinds are beginning, we feel, to appreciate the fact that it is in their interest to obtain, prepare, and sell a good, clean, and wholesome product and above all that food hygiene is not a "pious fad" of the public health officer but a custom-bringing and money-making gospel, and that cleanliness pays substantial dividends. It would appear that the hard efforts of years of precept and example are now beginning to bear fruit in that food establishments on the whole are cleaner and food handlers more careful and more sanitary with their products.

The numbers of shops, restaurants, parlours, boarding-houses that seek registration every year and which are successful in getting certificates of registration continue to rise and itinerant vendors, too, are coming in in greater and greater numbers. These latter, of course, are at once the most dangerous from the point of view of the conveyance of disease, and the most elusive.

I need hardly state that a certain latitude must inevitably be allowed and some relaxation exercised because of the well known difficulty in obtaining necessary equipment and material with which to furnish shops, &c., and to screen trays and other containers, quite a number of food vendors and the itinerant vendors particularly being so poor as scarcely to be able to afford to buy these basic essentials. In fact many of these latter only take to preparing and selling food as a last resort when all other means of earning a living have failed.

There is, however, a definite forward march and often some necessary and purely temporary relaxation of standards is so greatly appreciated that full compliance is easily attained as soon as funds become available.

There still remains far too many unsuitable and inevitably insanitary food places especially in the down-town section of the City, east of Frederick Street, where food is prepared, stored and served under the worst possible conditions and though our efforts to get rid of these places have met with some success, there still remains much leeway to be made up.

In so far as food supply is concerned whilst there have not been any serious shortages and whilst the maintenance of the all round level of supply has been satisfactory, the price of foodstuffs is high and continues to soar.

It is true that wages and even salaries rise with the general rise of the cost of living, but is it still difficult for the man in the street to get three square meals a day and the state of the white-collared worker, of limited income and with a family to look after, bring up and educate, can better be imagined than described.

In September of the year under report as a result of a resolution passed by the Local Authority, the Department inaugurated the system of food inspection and food examination at the Port-of-Spain Wharves, as part and parcel of its clean food campaign, and two Sanitary Inspectors with the Meat and other Foods Certificate of the Royal Sanitary Institute were posted on the Wharves to secure the inspection and examination of food immediately on its arrival at the Wharves and before distribution to the various consignees and agents in the City.

This is in keeping with established practice at all important ports and by this means we hope to stop at the source, so to speak, the distribution and circulation of suspicious as well as definitely unsound food before it has had time to leave the warehouses on the Wharves.

Every consignment of foodstuffs is examined *secundum artem* and a close collaboration is effected with customs officers, customs clerks, and port workers with a view to securing the quick and careful examination of foodstuffs.

Delay in the delivery and distribution of foodstuffs is thereby specifically avoided and during the year under report on only one occasion was it found necessary to put a Detention Notice on a large consignment of foodstuffs.

This work continues, is of great interest and importance, and is likely to lead to a great reduction in the deterioration of essential foodstuffs, to a decrease in the amount of foodstuffs condemned, as well as to a raising of the standard of the food imported into the Colony.

### Sale of Foodstuffs Bye-Laws (1951)

#### REGISTRATION OF SHOPS, &C.

Provision, meat, and spirit shops, restaurants, hotels, refreshment parlours	...	...	...	...	...	410
Ground provision and fruit shops	...	...	...	...	...	23
Bakehouses	...	...	...	...	...	2
Confectionery shops	...	...	...	...	...	3
Aerated water factories	...	...	...	...	...	—
Other factories	...	...	...	...	...	4
Total 1951	...	...	...	...	...	442
Total 1950	...	...	...	...	...	355

#### REGISTRATION OF VENDORS

Bread and cakes	...	...	...	...	...	21
Confectionery	...	...	...	...	...	14
Cooked food including fries, souse, &c.	...	...	...	...	...	45
Meat, fish and cheese	...	...	...	...	...	3
Ice-cream and palets	...	...	...	...	...	21
Sweet drinks	...	...	...	...	...	16
Vegetables, greens, fruits	...	...	...	...	...	132
Miscellaneous	...	...	...	...	...	1
Total 1951	...	...	...	...	...	253
Total 1950	...	...	...	...	...	310

Number of badges issued to itinerant vendors ... 276 (313—1950)  
 Number of oyster vendors licensed under Sale of Oyster Bye-laws 2 ( 3—1950)

### Sale of Milk Bye-Laws (1951)

#### DAIRIES AND MILK SHOPS

<i>Sub-Districts</i>	<i>Cowshed Licences Issued</i>					
City proper	...	...	...	...	...	—
East Dry River (unsewered)	...	...	...	...	...	—
Belmont (unsewered)	...	...	...	...	...	—
Woodbrook (sewered, but premises not all connected with the sewerage system)	...	...	...	...	...	—
St. James (unsewered)	...	...	...	...	...	7
Total 1951	...	...	...	...	...	7
Total 1950	...	...	...	...	...	8

#### DAIRYMEN'S LICENCES

Dairymen's licences issued to cowkeeper's and other purveyors of milk	...	...	...	...	...	8
Dairymen's licences issued to shops, milk bars and refreshment parlours	...	...	...	...	...	48
Total 1951	...	...	...	...	...	56
Total 1950	...	...	...	...	...	44

### Milk Vendors' Licences and Badges

<i>City and out-districts</i>	<i>Milk Vendors' Licences</i>			<i>Cows Tuberculin Tested</i>	<i>Badges</i>
Port-of-Spain	...	...	58	228	11
Out-districts	...	...	114	411	119
Total 1951	...	...	172	639	130
Total 1950	...	...	151	407	126



## FOODSTUFFS SEIZED OR SURRENDERED AND DESTROYED—1951

## Under Part X of the Public Health Ordinance, Ch. 12. No. 4

Apples	...	...	crates	...	...	7	Maccaroni	...	cases	...	...	44
Baking Powder	...	...	tins	...	...	728	Meats (preserved)	barrels	...	...	...	98
Butter	...	...	cases	...	...	5	including bacon,	cases	...	...	...	93
			packages	...	...	36	corned and					
			pounds	...	...	595½	pickled beef	crates	...	...	...	2
							and pork, ham,					
							frozen poultry					
							meat paste,	tins	...	...	...	5,706
							sausage, veal	pounds	...	...	...	8,287
							loaf					
Carrots	...	...	bags	...	...	150	Milk (preserved	cases	...	...	...	7½
			tins	...	...	36	—sweetened					
							and	tins	...	...	...	62
							unsweetened)					
Cheese	...	...	cases	...	...	73	Oats (rolled)	...	pounds	...	...	300
			packages	...	...	120						
			pounds	...	...	19½						
Cocoa	...	...	tins	...	...	1	Oils and fats	...	gallons	...	...	1
									pounds	...	...	2½
							Onions...	...	pounds	...	...	1½
Condiments, pickles			bottles	...	...	35						
Confectionery	...	...	bottles	...	...	4	Peas	...	tins	...	...	50
			pounds	...	...	32	Potatoes	...	bags	...	...	6
			tins	...	...	6			crates	...	...	1,107
Fish (fresh)	...	...	pounds	...	...	1,187			pounds	...	...	3,174
							Rice	...	bags	...	...	7
Fish (frozen)	...	...	pounds	...	...	2,550	Rice (sweepings)	pounds	...	...	...	1,751
Fish (preserved)	...	...	cartons	...	...	25	Salt	...	bags	...	...	1
			cases	...	...	21	Sugar	...	pounds	...	...	239
			packages	...	...	720						
			pounds	...	...	577	Tea	...	pounds	...	...	5½
			tins	...	...	1,072						
Garlic	...	...	pounds	...	...	10	Tomato juice and	tins	...	...	...	361
							Vegetable soup					

## Anti-Rat Measures

The anti-rat service constitutes one of the most important services performed by the Public Health Department and the Anti-Rat Unit is kept fully occupied with routine work and with the numerous complaints of rat nuisance which are received practically every day from residents in the various parts of the Urban Sanitary District.

During the year under review opportunity was taken to put the working of the Unit on a more satisfactory basis in keeping with modern developments in the theory and practice of rat-catching. It was found necessary to institute a system of house-to-house inspection for rat nuisance and every section of the City is now covered, special attention being paid, however, to the down-town areas where the various shops, restaurants, and business places are situated and where food is stored in large warehouses and so constitute a safe and substantial habourage for rats and mice.

More and more the method of poisoning these rodents is being undertaken, the older and more popular method of trapping being adopted only to put the finishing touches, so to speak, to the aforementioned operation.

With poisoning it is absolutely necessary to pre-bait, then to poison-bait, and then finally to post-bait, different baits and different poisons being used before and after the main operation. By using this modern technique and by adopting the practice of "block control", i.e., the practice of dealing with a whole block of premises in one major operation, it has been found possible to deliver a knock-out blow to the larger proportion of the rats inhabiting any particular block. This method has been employed in dealing with the warehouses in the King's Wharf area and a large number of rats and mice have been destroyed in the course of the operations which were undertaken here.

Great success has been achieved with "warfarin" and this anti-coagulant has been employed against rats infesting dwellings in the up-town areas and in the suburbs by reason of the greater degree of safety to poultry, livestock, and even humans attendant upon its use. Rats continue to eat this substance with great avidity until internal bleeding is so profuse that it leads to death usually about the fifth or sixth day. With poisons like zinc phosphide, arsenious oxide, red squills, or barium carbonate it is comparatively easy to find and collect the poisoned rats because of the knock-out blow these poisons deliver making it difficult for them to escape into their holes or to inaccessible places. With "warfarin", however, rats usually seek some sheltered place where water is available and where they die and very often it is only the nuisance created by the stench of their decomposing bodies that causes a search to be made with a view to abating this nuisance.

## DESTRUCTION OF RATS AND MICE, 1951

Rats caught by trappers	...	...	...	...	...	29,559
Rats bought	...	...	...	...	...	6
Total	...	...	...	...	...	29,565
Mice caught and destroyed	...	...	...	...	...	6,827



## EXAMINATION OF RATS BY GOVERNMENT BACTERIOLOGIST

Rats examined for plague	...	...	...	...	29,565
Rats found infected with plague	...	...	...	...	—
Immature rats not examined	...	...	...	...	—

## SPECIES

			<i>Decumanus</i>	<i>Rattus</i>	<i>Total</i>
Males	...	...	8,490	1,396	9,886
Females	...	...	16,389	3,290	19,679
Total	...	...	24,879	4,686	29,565

## Anti-Mosquito Measures

The anti-mosquito work of the Department continued unabated during the year under report and the attack on all species of mosquitoes that infest the Urban Sanitary District was kept up by the Anti-Mosquito Unit of the Department.

There can be no let-up in this service and close collaboration with the scavenging and flushing units of the City Engineer's Department is an absolute necessity, as underground drains and stagnant pools are a fertile source of mosquito breeding, particularly of the culex variety.

The filling of pools and depressions, the elimination of sheets of stagnant water, the clearing of bush infested areas, the canalising of the Maraval River, the oiling of cesspits in the unsewered sections of the City and the spraying of the large expanse of swampy areas at the south-eastern and south-western limits of the City, where anopheles breeding takes place in the wet season of the year, represent, in brief, the work of this Unit.

Since March, 1951 an anti-aedes drive has been in progress and this section of the Unit has been devoting its attention to the aedes infestation which constitutes the bulk of the mosquito nuisance which besets the City.

Special attention is being given to this work in common with the countries of Central and South America in a combined effort to get rid of *aedes aegypti*, the carrier of the virus of epidemic yellow fever. It has been demonstrated that with the use of DDT, to which the yellow fever mosquito is particularly vulnerable, it is possible eventually to eliminate this mosquito and the drive is being actually executed under the aegis of the Pan American Sanitary Bureau.

At the moment the Unit is organised for the use of larvicidal DDT and at the end of year under report a great degree of success was achieved, but it would appear that with the use of larvicidal DDT alone it is going to be a difficult job to attain an aedes index of zero which is the ultimate objective. The experience, so far is that with the large number of new containers that continue to make their appearance at regular intervals in the yards of householders, the lowered index tends to rise again, and this is particularly so during the second half of the year when the rains set in and the clearance of the numerous containers away from the yards and, for that matter, the work of the Unit itself, is impeded.

It has been decided, therefore, to undertake the residual spraying of premises with particular emphasis on those premises that are contiguous to the infested areas around the City.

This project is due to commence at the beginning of the New Year 1953 and by this means, combined with larvicidal DDT, it is hoped to get down to an aedes index of zero which is the margin of safety against the propagation of yellow fever, if by any chance it were to be introduced into the City.

## INSPECTION OF EAVES, GUTTERS, &amp;C., 1951

Number of inspections of premises (Anti-Mosquito Unit)	...	...	...	...	131,488
Number of inspections of eaves gutters	...	...	...	...	52,019
Number of occasions found in good order	...	...	...	...	40,182
Number of occasions found defective	...	...	...	...	11,837
Number of occasions found containing water only	...	...	...	...	3,777
Number of occasions found containing water and larvae	...	...	...	...	854
*Number of occasions mosquito larvae were found in tubs, anti-formicas, tin cans, &c.	...	...	...	...	9,703
Yards cleared of receptacles	...	...	...	...	23,033

## LARVAL INDEX

					<i>Premises with mosquito larvae per cent. of number visited</i>
Yearly average 1938-1942	...	...	...	...	2.1
Year 1943	...	...	...	...	3.3
1944	...	...	...	...	5.4
1945	...	...	...	...	6.9
1946	...	...	...	...	7.3
1947	...	...	...	...	5.8
1948	...	...	...	...	4.4
1949	...	...	...	...	4.4
1950	...	...	...	...	4.6
1951	...	...	...	...	4.5

N.B.—\*Occasions on which mosquito larvae were found by sanitary inspectors, during the course of 102,453 inspections of premises, are included in above figure.

### Premises used for human habitation, Houses let in Lodgings, Common Lodging Houses

The position here is that the trend which had been taking place during the previous five years and which has already been reported on in previous reports continued during the year under review and whilst a fair amount of building has been taking place within the City, in the main, only business places have been going up and very few dwelling houses indeed have been erected. The result is that overcrowding and congestion continue to increase and very many dwelling houses are being forced to accommodate twice or even three times the number of people they were intended to accommodate.

In fact, accommodation for living purposes is at a premium and it is only at the great cost of a large amount of "key money" and almost invariably by the payment of months of rent in advance that it is possible to obtain a dwelling house or, for that matter, one room of a dwelling house, it being the rule rather than the exception for the large majority of dwelling houses in the suburbs of Belmont and East Dry River particularly to be occupied as barracks by two or three or more families.

Business places, however, in the down-town areas especially continue to be erected and others to be renovated on modern lines with the result that the shopping section of the City presents a pleasing, clean, and busy appearance reminiscent of the shopping and business centres of the larger cities of temperate climes.

Slum Clearance which has, in the past, been responsible for the clearing of so much of the eastern and southern sections of the City that was slum ridden, came to sudden standstill during the year under report and no relief to the great suffering of the poorer sections of the community has been forthcoming, a suffering that is reflected in the overcrowding and extending of Shanty Town at the extreme eastern limit of the City.

Happily at the moment I write renewed activity is becoming apparent and with the one hundred thousand dollars provided in the current year's estimates for slum clearance in the City it is proposed to build more blocks of flats to accommodate former residents of the area who have been given alternative accommodation, whilst reconstruction is taking place.

It is sincerely to be hoped that some solution to this grave and increasing problem will be found and that due encouragement and extended facilities will be given to builders and contractors who desire to build dwellings for the housing of the City's population, but who in the past have been hard hit by the rising costs of labour and materials and by the restrictive tendencies of the various Rent Assessment Boards.

Surely it is not impossible to devise a system whereby those who wish to build dwelling houses for the poorer section of the community, particularly, can be given certain facilities such as a reduction of customs duties on essential materials, extended credit, and a worthwhile margin of profit on the money they have laid out.

### VITAL STATISTICS OF THE DISTRICT

#### Comparative Summary of Vital Statistics

(Unless otherwise stated, rates are per 1,000 population)

	1921	1949	1950	1951
Area of City—acres (pastures and open spaces included) ... ..	1,793	2,550	2,550	2,550
Estimated population (means) ... ..	61,386	101,564	104,311	107,009
Density of population (persons per acre) ... ..	34.2	40	41	42
Total live births ... ..	1,687	4,037	3,905	3,982
Birth rate ... ..	27.28	39.75	37.45	37.23
Still births registered ... ..	154	244	165	193
*Still birth rate ... ..	91.3	60.44	42.25	48.47
Marriages registered ... ..	534	1,034	948	1,031
Marriage rate ... ..	8.64	10.18	9.09	9.64
Total deaths ... ..	1,659	1,147	1,170	1,243
Dath rate ... ..	26.83	11.29	11.22	11.62
Natural increase of population ... ..	28	2,890	2,735	2,739
Deaths under one year ... ..	287	171	168	167
*Infant mortality rate ... ..	170.12	42.36	43.02	41.94
*Maternal mortality rate ... ..	—	1.98	2.30	2.51
<i>Death Rates :</i>				
Notifiable infectious diseases ... ..	6.21	1.50	1.24	1.13
Pulmonary tuberculosis ... ..	2.49	.57	.53	.25
Tuberculosis (other forms) ... ..	.26	.10	.13	.07
Enteric fever ... ..	1.25	.05	.03	.05
Pneumonia (all forms) ... ..	1.97	.73	.52	.75
Bronchitis ... ..	1.36	.23	.16	.21
Diphtheria ... ..	.02	.02	.03	.01
Malaria ... ..	.89	.01	—	.01
Syphilis ... ..	.21	.07	.08	.10
Diarrhoea and enteritis ... ..	1.91	.30	.35	.39
Influenza ... ..	.26	.04	.04	.04
Ankylostomiasis ... ..	.15	.02	—	—
Bright's disease and nephritis ... ..	2.09	.25	.23	.27
Diseases of the heart and blood vessels ... ..	2.65	2.56	2.64	2.95
Diseases of the nervous system including cerebral haemorrhage ... ..	1.70	1.34	1.29	1.41
Cancer and other malignant diseases ... ..	.63	.90	.89	.94

\*Per 1,000 births.

Census population of City April, 1946: 93,198.

Estimated population of City to 31st December, 1951 : 108,273.

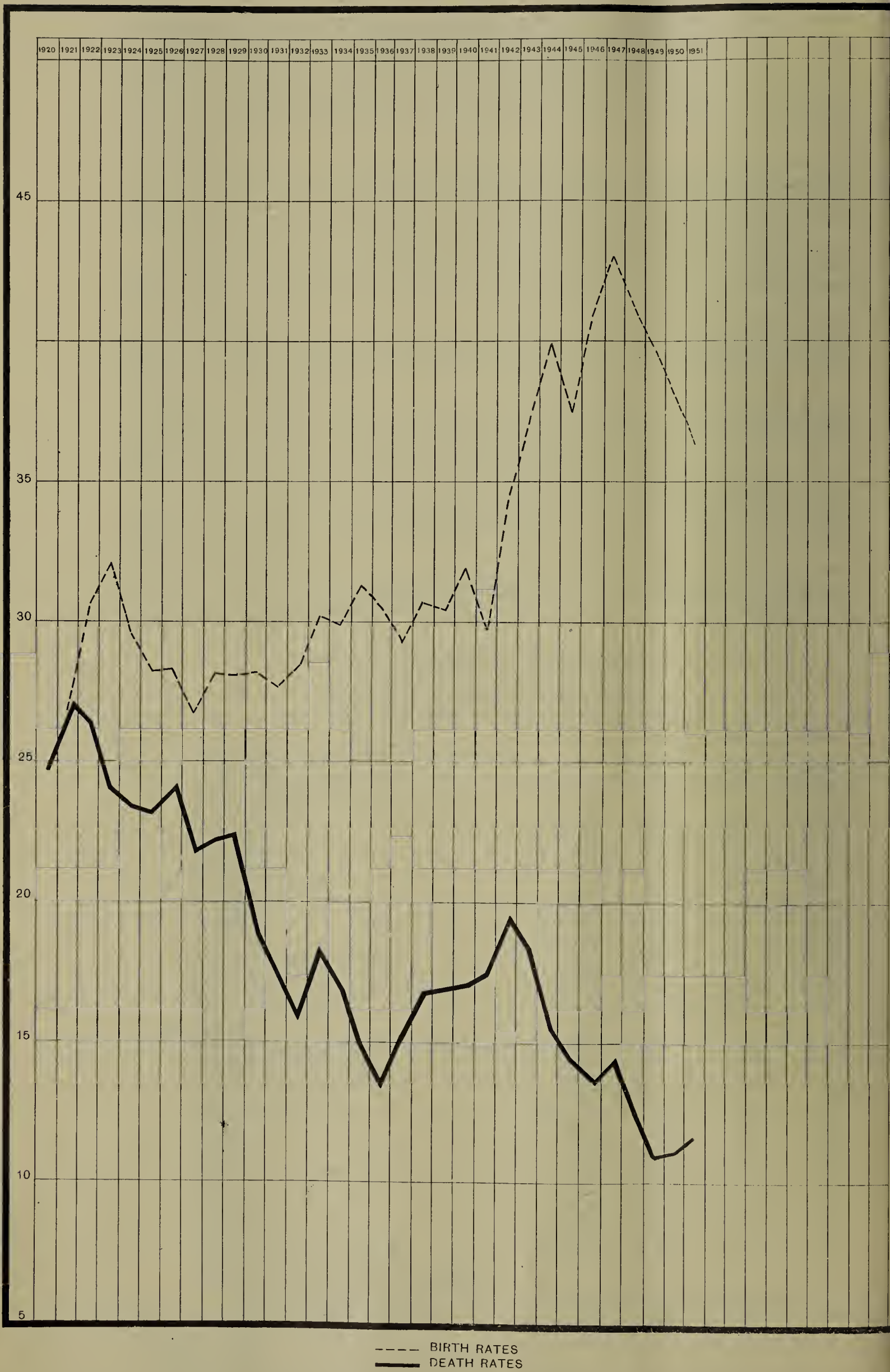
Colony's Mean Population: 643,446.







Chart A  
Port of Spain  
Birth Rates and Death Rates per 1,000 Population 1920-1951



### Acreage and Population

No change in the acreage of the City has taken place since my last report, i.e., the report for the year 1950.

The acreage now stands at 2,550 acres, 168 acres of which represents the reclaimed lands south of Wrightson Road proper and the King's Wharf and Dock Site areas.

In 1917 the area of the City was 1,793 acres which included the 279 acres of the Queen's Park Savannah ; 757 acres therefore, have been added to the City in 34 years.

The mean population, that is, the population to the end of June, 1951, was estimated to be 107,009 representing an increase of 2,698 souls on the figure 104,311, the estimated mean population for 1950.

The population of the City at the end of the year, i.e., at the 31st of December, was estimated to be 108,273, an increase of 4,529 on the figure for 1950, 103,744 and a natural increase of population of 2,739 souls.

The Colony's mean population, i.e., the population at the end of June, 1951, was estimated to be 643,446 souls.

The census population of the City worked out to be as follows :— for the year 1921, 61,580 souls ; for the year 1930, 70,334 souls ; for the year 1946, 93,198 souls.

### Birth and Birth Rates

The birth rate for the City which started to rise in the year 1941 and reached the peak figure of 43.81 per 1,000 population in 1947 and has since been dropping again, showed a decline in 1951 as compared with 1950, the figure being 37.23 and 37.45 per 1,000 population, respectively. This is the fourth year that it has done so and it would appear that this decline is statistically significant.

A falling birth rate in combination with a falling death rate engenders great satisfaction in the minds of economists and social workers who are inclined to attribute most of our economic ills to a high and rising birth rate and who in certain cases have gone so far as to advocate the practice of artificial birth control.

It is fortunate for those who hold contrary views and who are opposed to artificial birth control that this proposition has found no favour with the United Nations Organisation which has just recently refused to entertain artificial birth control as part and parcel of its policy.

### Death and Death Rates

The figure of 11.62 per 1,000 population represents a higher death rate by .40 per 1,000 than the rate of 11.22 per 1,000 population for the previous year but this slight rise will have to be "observed" for a few years before any conclusion of statistical significance can be arrived at. As a matter of fact, the death rate has been falling consistently since 1942 with the same sort of slight rise in 1947 as has been noted in the year under report.

This consistent fall in the death rate is the logical outcome of improved and improving environmental hygiene, of better personal health, of improved hospital and social services, of better health administration, and of a greater consciousness of the value of good health and clean living.

It is indeed remarkable as indicating the much greater influence of the factors that I have just referred to, that in spite of economic difficulties, the scarcity of essential foodstuffs, the high cost of living index and the increasing complexity of urban life that this downward trend has been consistently maintained during the past ten years especially.

When the death rates for the various sub-districts of the City are critically analysed it will be seen that the East Dry River District had a death rate of 11.87 per 1,000 population, the Belmont District a death rate of 10.43 per 1,000 population, and Woodbrook and the City proper a rate of 6.11 and 8.18 per 1,000 population respectively, a finding which has been practically constant for the past 35 years and which, in view of the well known state of insanitation, the overcrowding and congestion, and the general poverty of the residents, as a whole of the former sub-districts, can always be confidently predicted.

Births 1951				Deaths 1951			
Males	Females	Both Sexes	Birth Rate per 1,000 population	Males	Females	Both Sexes	Death Rate per 1,000 population
2,058	1,924	3,982	37.23	655	588	1,243	11.62

### Deaths in Sub-Districts of the City 1951

SUB-DISTRICT			Mean Population	DEATHS				Total Deaths in Sub- Districts	Rate per 1,000 population
				PLACE OF OCCURRENCE					
				Home, &c.	Colonial Hospital	Royal Gaol	House of Refuge		
City Proper ...	...	...	36,818	152	138	11	—	301	8.18
St. Clair ...	...	...	1,794	16	1	—	—	17	9.48
East Dry River ...	...	...	23,751	128	154	—	—	282	11.87
Belmont ...	...	...	18,503	112	81	—	—	193	10.43
Woodbrook ...	...	...	13,579	56	27	—	—	83	6.11
St. James ...	...	...	12,564	101	65	—	201	367	29.21
TOTAL ...			107,009	565	466	11	201	1,243	11.62

\* See Table : " Comparison of Death Rates ".



## Comparison of Death Rates 1951

	No. of Deaths	Death Rate per 1,000 population
(1) City (St. James excluded) ... ..	876	9.28
(2) City, including St. James ... ..	1,243	11.62
(3) City, as in (2), but omitting House of Refuge ... ..	1,042	9.79
(4) St. James (House of Refuge excluded) ... ..	166	13.92

## Age Distribution of Deaths 1951

Period	Males	Females	Both Sexes	Percentage of Total Mortality at All Ages
Under 1 year ... ..	99	68	167	13.43
1- 5 years ... ..	19	24	43	3.46
6-10 do. ... ..	8	5	13	1.04
11-20 do. ... ..	12	8	20	1.61
21-30 do. ... ..	15	26	41	3.30
31-40 do. ... ..	35	48	83	6.68
41-50 do. ... ..	82	43	125	10.06
51-60 do. ... ..	95	54	149	11.99
Over 60 years ... ..	290	312	602	48.43
TOTAL ... ..	655	588	1,243	—

## Comparison of Deaths at different Age periods, 1928-51

Period	Total Deaths at All Ages	DEATHS UNDER 1 YEAR		DEATHS 1-5 YEARS		DEATHS 56-60 YEARS		DEATHS OVER 60 YEARS	
		No.	Percentage of Total Deaths	No.	Percentage of Total Deaths	No.	Percentage of Total Deaths	No.	Percentage of Total Deaths
Yearly Averages									
1928-32 ...	1,327	230	17.42	81	6.06	94	7.09	336	25.10
1933-37 ...	1,167	215	18.24	62	5.29	87	7.57	289	24.74
1938-42 ...	1,622	275	16.85	68	4.21	117	7.20	566	34.92
1943 ...	1,862	283	15.20	102	5.48	131	7.04	674	36.20
1944 ...	1,620	248	15.31	77	4.75	106	6.54	598	36.92
1945 ...	1,526	239	15.66	71	4.65	86	5.64	561	36.76
1946 ...	1,396	241	17.26	77	5.52	95	6.81	493	35.32
1947 ...	1,385	231	16.68	49	3.54	92	6.64	536	38.70
1948 ...	1,191	177	14.86	45	3.78	66	5.54	491	41.23
1949 ...	1,147	171	14.91	57	4.97	85	7.41	524	45.68
1950 ...	1,170	168	14.36	75	6.41	76	6.50	526	44.96
1951 ...	1,243	167	13.43	43	3.46	79	6.35	602	48.43

## Causes of Deaths

Of the 1,243 deaths certified to all causes during the year 1950, by far the largest number, 318, were attributed to disease of the circulatory system which, of course, includes diseases of the heart and blood vessels.

This represents an increase of 37 on the figure of 281 for the previous year 1950.

As a matter of fact, it is the highest death rate from this cause which has been recorded since the year 1917 when the Local Authority came into being, with the coming into force of the Public Health Ordinance.

Diseases of the nervous system and of organs of special sense claimed the second highest number of deaths, 151 as compared with 134 the number for the year before, i.e., 1950, and next in order came notifiable infectious diseases with 121 deaths as against 129 in 1950.

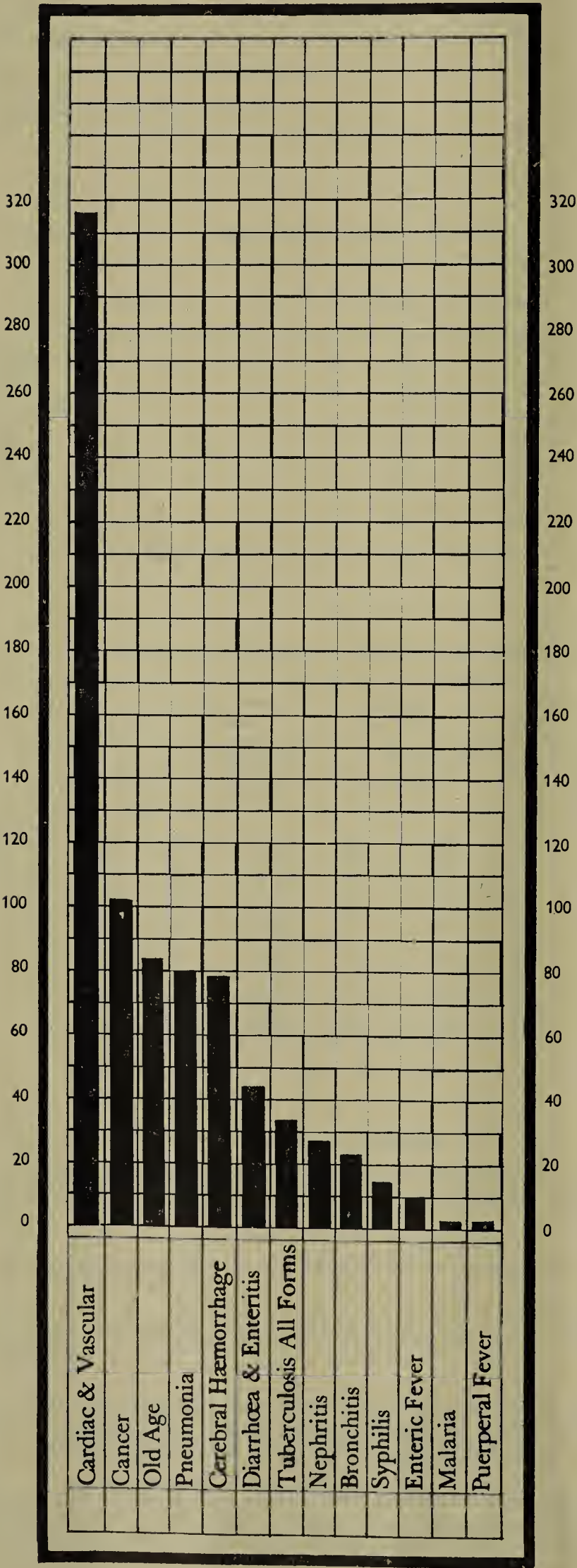
Generally it may be stated that whilst deaths certifiable to the infectious diseases and other acute diseases continue to show a steady decline, the chronic system diseases and old age continue to claim an increasing number of victims, a state of affairs which must be expected in view of the lengthening of the expectation of life and the consequent increasing number of elderly people living in the later age groups.





Chart B  
Port of Spain

Principal Individual  
CAUSES OF DEATHS 1951



## I—GENERAL DISEASES

## Infant Mortality

It would then be apparent that a tremendous amount of work was done and is being done by volunteers and enthusiasts whose only reward is the satisfaction they feel that this very necessary piece of work is not being left undone and a good deal of suffering and misery is being alleviated. All these voluntary organisations need help and encouragement from Government and Local Authorities as well as increased subventions, and the thinking public should not hesitate to support to the fullest the services which are rendered, services which cannot be left undone and which in fact need expanding and intensifying, if all those who need them are to be brought under their wing.



In the case of child welfare the beneficent nature of the work cannot be over emphasised. Here, par excellence, is an instance of preventive work producing splendid results and laying the foundation of a sound, healthy, and productive citizenship.

Critical analysis of the tables hereunder listed again demonstrates the fact that the neo-natal mortality, i.e., the number of infants dying under one month, constitutes a very high percentage, 46.11 per cent. of the total mortality under one year, a fact which again underlines the great importance of measures of prevention directed to the mother during pregnancy and confinement especially, at which periods the bulk of the causes that bring about the death of the new born infant operate.

If any further reduction of the infant mortality rate is to take place, it is imperative that such well known causes of death as prematurity, congenital debility, marasmus, malnutrition, congenital abnormalities, congenital syphilis, congenital heart disease, which affect the foetus during the ante-natal period, and asphyxia neonatorum, atelectasis, haemorrhage of the new born which operate mainly in the intra-natal period be eliminated.

#### Births and Deaths of Infants under 1 year, 1917-51

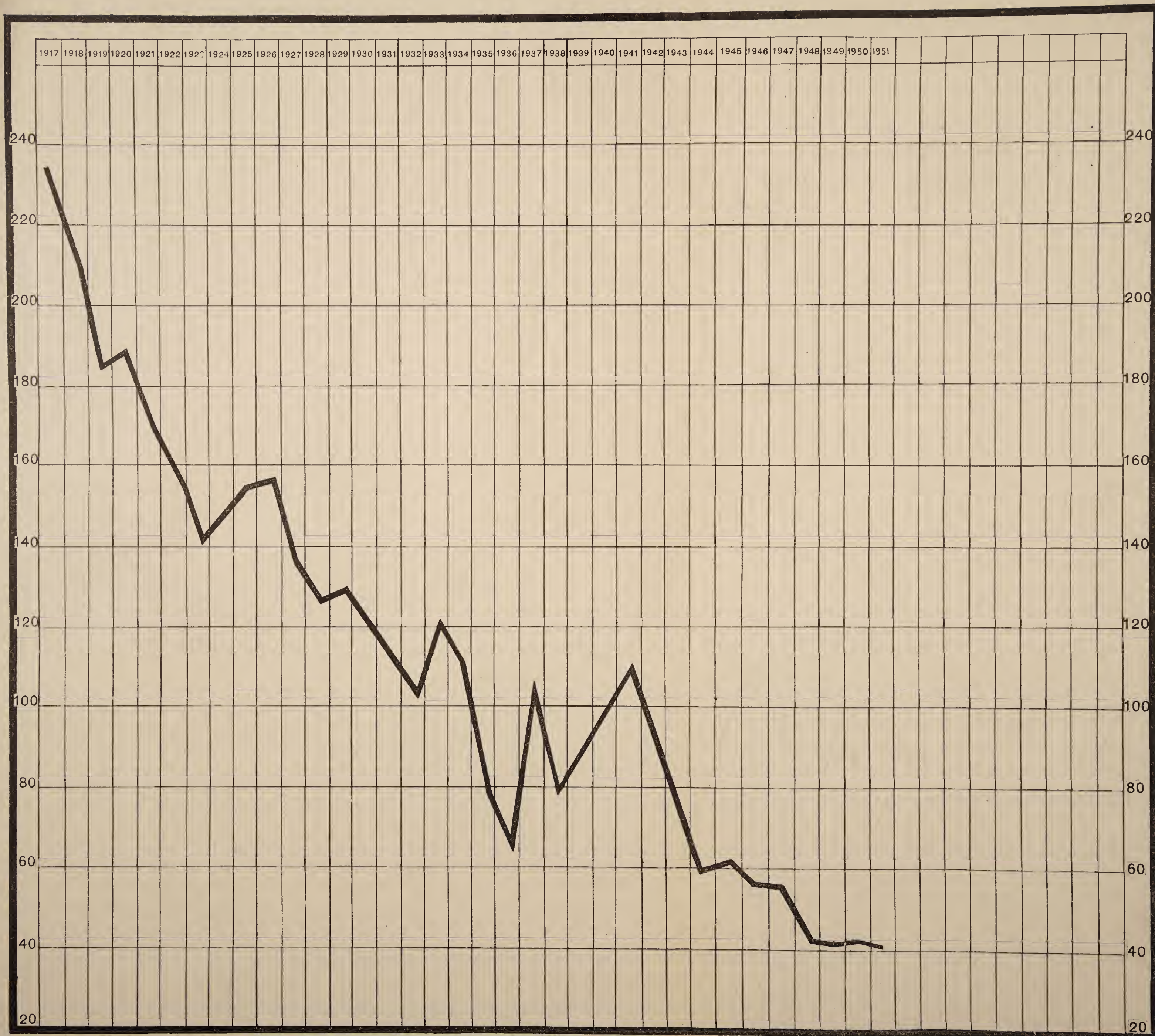
Period				No. of Births	No. of Deaths under 1 year	Infant Mortality Rate
Year 1917	...	...	...	1,770	412	232.77
Yearly Averages :						
1918-22	...	...	...	1,700	310	182.94
1923-27	...	...	...	1,862	274	146.96
1928-32	...	...	...	1,925	230	119.13
1933-37	...	...	...	2,248	215	96.05
Average 1918-37	...	...	...	1,901	288	155.57
Year 1938	...	...	...	2,591	204	78.73
1939	...	...	...	2,752	242	87.94
1940	...	...	...	2,937	291	99.08
1941	...	...	...	2,888	314	108.73
1942	...	...	...	3,399	322	94.73
Average 1938-42	...	...	...	2,913	275	93.84
Year 1943	...	...	...	3,751	283	75.45
1944	...	...	...	4,161	248	59.60
1945	...	...	...	3,972	239	60.17
1946	...	...	...	4,133	241	58.31
1947	...	...	...	4,113	231	56.16
1948	...	...	...	4,053	177	43.67
1949	...	...	...	4,037	171	42.36
1950	...	...	...	3,905	168	43.02
1951	...	...	...	3,982	167	41.94

#### Causes of Deaths under 1 year, 1951

Causes of Deaths				Neo-Natal Deaths under 1 month	Deaths 1 month and under 1 year	Total	Percentage of Total Infant Mortality
<i>Ante-Natal Causes :</i>							
Prematurity	...	...	...	42	2	44	
Congenital Debility	...	...	...	—	1	1	
Marasmus	...	...	...	—	9	9	
Malnutrition	...	...	...	—	11	11	
Congenital Abnormalities	...	...	...	1	1	2	
Congenital Syphilis	...	...	...	1	1	2	
Congenital Heart Disease	...	...	...	1	4	5	
Total Ante-Natal	...	...	...	45	29	74	44.31
<i>Intra-Natal Causes :</i>							
Asphyxia Neonatorum	...	...	...	11	2	13	
Atelectasis	...	...	...	8	1	9	
Haemorrhage	...	...	...	4	—	4	
Umbilical Haemorrhage	...	...	...	2	—	2	
Total Intra-Natal	...	...	...	25	3	28	16.77
<i>Post-Natal Causes :</i>							
Pneumonia	...	...	...	2	17	19	
Diarrhoea and Enteritis	...	...	...	1	22	23	
Bronchitis	...	...	...	—	6	6	
Icterus Neonatorum	...	...	...	1	1	2	
Enteric Fever	...	...	...	—	1	1	
Meningitis	...	...	...	—	1	1	
Other Post-Natal Causes	...	...	...	2	9	11	
Total Post-Natal	...	...	...	6	57	63	37.72
Unknown	...	...	...	1	1	2	1.20
GRAND TOTAL	...	...	...	77	90	*167	—



Chart C  
Port of Spain  
Infant Mortality Rates-per 1,000 Live Births 1917-1951







## Duration of Life of Infants dying under one year of Age, 1951

Duration of Life	No. of Infants	Percentage of total deaths under 1 year	Corresponding percentage 1950
Under 1 day ... ..	26	15.57	15.48
1 day and under 2 weeks ... ..	47	28.14	31.55
2 weeks and under 1 month ... ..	4	2.40	1.79
Total under 1 month ... ..	77	46.11	48.82
1 month to 3 months ... ..	43	25.75	13.09
Over 3 to 5 months ... ..	16	9.58	9.52
Over 5 to 7 months ... ..	11	6.59	8.93
Over 7 to 9 months ... ..	14	8.38	12.50
Over 9 to 11 months ... ..	6	3.59	7.14
Over 11 and under 1 year ... ..	—	—	—
TOTAL ... ..	167	—	—

## Neo-Natal Mortality (Deaths under 1 month) 1930-1951

Period	No. of Deaths under 1 month	Percentage of total deaths under 1 year	Neo-Natal Mortality Rate per 1,000 Births
Yearly Average : 1930-34 ... ..	90.6	38.60	44.03
Year 1935 ... ..	91	50.28	39.24
1936 ... ..	61	40.94	26.58
1937 ... ..	110	46.41	48.39
1938 ... ..	117	57.35	45.16
1939 ... ..	122	50.41	44.33
Average 1935-39 ... ..	100.2	49.08	40.74
Year 1940 ... ..	132	45.36	44.94
1941 ... ..	137	43.63	47.44
1942 ... ..	134	41.62	39.42
1943 ... ..	134	47.35	35.72
1944 ... ..	117	47.18	28.12
1945 ... ..	126	52.72	31.72
1946 ... ..	136	56.43	32.91
1947 ... ..	133	57.58	32.20
1948 ... ..	76	42.94	18.75
1949 ... ..	82	47.96	20.31
1950 ... ..	82	48.82	21.00
1951 ... ..	77	46.11	19.34

## Still Births

More and more it is being realised that the problem of still births is one of the greatest significance and importance.

The attitude of casual notice and quiet tolerance in the face of a menacing problem which has in its basic causes an important influence on the infant mortality rate itself is not likely to lead to the adoption of preventive measures directed to its elimination.

There is a very short cry between a still birth and the death of an infant born alive but dying within the first few days of extra uterine life.

In fact the same ante-natal and intra-natal causes that operate in the production of the neo-natal mortality, i.e., in the deaths of infants in the first month of life, operate in the production of still births, and the natural corollary is that the same means must be directed to both types of mortality, if a reduction in both the still birth rate and the neo-natal portion of the infant mortality is to be attained.

These include prompt and skilled care and attention during the ante-natal and the intra-natal periods with a view to the elimination of those accidents and diseases that have such an adverse effect on the birth and growth of the infant.

During the year under report 193 still births were recorded giving a still birth rate of 48.47 per 1,000 live births, a much higher rate than the corresponding figure 42.25 for the year 1950 but still lower than the figures recorded for the past twelve years, as an examination of the table listed hereunder will show.

This general lowering of the still birth rate is in keeping with the general lowering of the infant mortality rate that has been taking place during the past twenty-five years and the causes for this decline are likely to be the same, but much leeway remains to be made up before these rates can compare favourably with the rates now obtaining in the larger and more advanced cities of the world.

## Still Births 1951

Year	Total Still Births	Rate per 1,000 Live Births
1951 ... ..	193	48.47
1950 ... ..	165	42.25
1949 ... ..	244	60.44
1948 ... ..	223	55.02
1947 ... ..	220	53.49
1946 ... ..	225	54.44
1945 ... ..	224	56.39
1944 ... ..	265	63.69
1943 ... ..	230	61.32
1942 ... ..	257	75.61
1941 ... ..	211	73.06
1940 ... ..	214	72.86
1939 ... ..	190	69.04
1938 ... ..	171	66.00



### The Pre-School Child

Whilst much care and attention have for decades now been lavished on the infant under one year and whilst so much has been achieved in the prevention and treatment of those accidents and diseases that cause its death, the pre-school child, by contrast, seems completely neglected.

And this is a period of the child's life which is so important from the point of view of future manhood and fruitful citizenship seeing that diseases occurring at this period and left untreated are likely to affect profoundly the future health and usefulness of the grown up adult and make him a lifelong burden on, rather than an active contributor to, the welfare of the state.

The infant at the end of a year or 18 months seems, so to speak, to be lost to all care and welfare organisations only to be discovered again as he enters school at the age of five when a number of defects and diseases are discovered which could quite easily, in the majority of cases, have been prevented if only they had been detected at an earlier period of time.

Happily this important fact is being more generally recognised and more and more effort is being directed to the establishment of nurseries and nursery schools where toddlers between the ages of 1 and 5 can be attended to and, if necessary, left during the day whilst their parents go out to work to help earn the daily bread.

This service needs extension and encouragement and there should be no hesitation in making available the funds necessary for the purpose.

#### Causes of Death at Ages 1-5—1951

Groups	Group Total	Percentage of Total Mortality at ages 1-5
<i>Diseases, &amp;c., attributable to Ante-Natal Causes:</i>		
General Emaciation 1, Malnutrition 3, Marasmus 3 ... ..	7	16.28
<i>Communicable Diseases:</i>		
Diphtheria 1, Pneumonia 9, Tetanus 1 ... ..	11	25.58
<i>Diseases of the Nervous System:</i>		
Epileptic Seizures 1 ... ..	1	2.32
<i>Diseases of the Respiratory System:</i>		
Bronchitis 3, Respiratory Failure 1 ... ..	4	9.30
<i>Diseases of the Digestive System:</i>		
Diarrhoea and Enteritis 9, Inguinal Hernia 1 ... ..	10	23.26
<i>Other Causes:</i>		
Acute Bacterial Endocarditis 1, Acute Mastoiditis 1, Anaemia 1, Arthrogryphosis 1, Barus 1, Fracture of Skull 1, Heart Failure 1, Myocarditis 1, Secondary Tumours 1, Unknown 1	10	23.26
	*43	—

\* M.—19; F.—24.

### Maternal Mortality

Ten deaths of mothers were recorded during the year 1951 and the causes of death were puerperal sepsis, 1 ; eclampsia, 1 ; haemorrhage, 2 ; and other causes that included abortion, ectopic gestation, toxæmia of pregnancy, 6.

This gives a maternal mortality rate of 2.51 per 1,000 live births, which is higher than the rate of 2.30 for 1,000 live births recorded last year 1950.

It is, also, higher than the average maternal mortality rate for the last five years which worked out at 2.08 per 1,000 live births.

There is, therefore, urgent need for all expectant mothers to be brought under skilled care at the earliest possible opportunity so that pregnancy, confinement, and the post-natal period can be effectively supervised and skilled and prompt attention given to many of the abnormalities and complications that may arise at these times.

#### Causes of Maternal Deaths, 1951

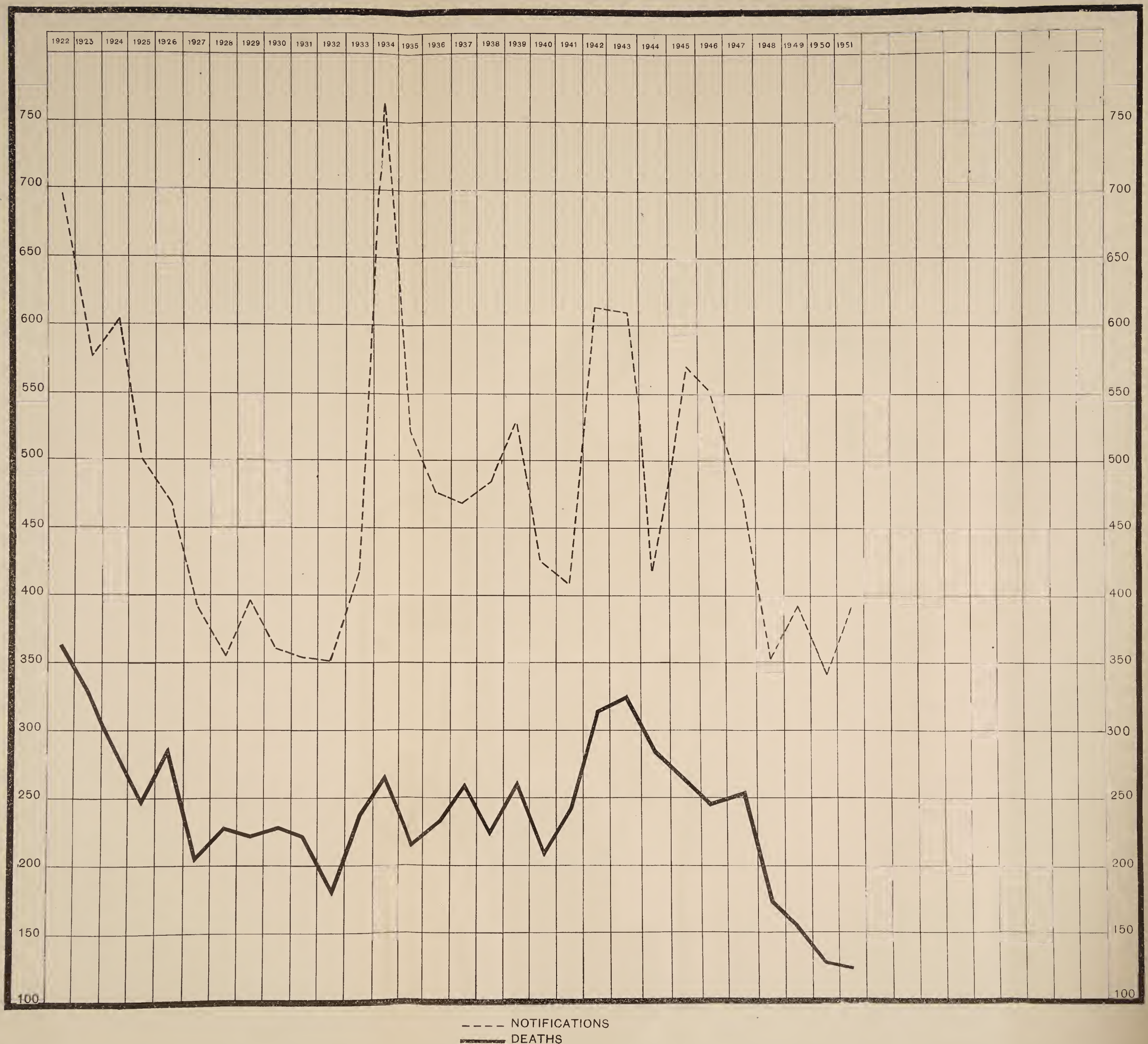
Causes of Maternal Deaths	Under 16	16 to 25	26 to 35	36 and upwards	Total All Ages	Rate per 1,000 Births	
						1951	Average 1946-50
Puerperal Sepsis ... ..	—	—	—	1	1	0.25	0.24
Eclampsia ... ..	—	—	1	—	1	0.25	0.25
Haemorrhage ... ..	—	—	1	1	2	0.50	0.30
Pernicious Vomiting ... ..	—	—	—	—	—	—	—
*Other Causes ... ..	—	1	2	3	6	1.51	1.29
Total ... ..	—	1	4	5	10	2.51	2.08

\* "Other Causes" include Abortion, Ectopic Gestation, Toxaemia of Pregnancy.





Chart D  
Port of Spain  
Infectious Diseases—Notifications and Deaths 1922-1951





## PREVALENCE OF AND CONTROL OVER INFECTIOUS DISEASES

## Notifiable Infectious Diseases

The infectious diseases which are notifiable and to which, therefore, Part XIV of the Public Health Ordinance, Ch. 12. No. 4, applies, are now 20 in number, puerperal fever, having been added to the list in July, 1941.

They are : Diphtheria, membranous croup, the enteric fevers, pulmonary tuberculosis, tuberculosis (other forms), pneumonia, ophthalmia neonatorum, chicken pox, encephalitis lethargica, cerebro-spinal fever, acute anterior poliomyelitis (infantile paralysis), acute ascending myelitis, and puerperal fever in addition to plague, cholera, yellow fever, small pox (including alastrim), typhus fever, typhoid fever and anthrax which are dangerous infectious diseases and are quarantinable.

Typhoid fever and anthrax were proclaimed dangerous infectious diseases in 1937 and 1938 respectively (*Royal Gazette*, 30th July, 1937 and 2nd June, 1938).

On the whole the general practitioner is fully alive to his statutory obligation and notifies faithfully these diseases giving the public health officer, as a result, a chance to see to it that the case is isolated at the earliest possible moment and to apply those other measures of prevention that have proved to be effective in checking the spread of the disease.

There are lapses here and there and every now and then a practitioner has to be reminded that he has failed to notify promptly such and such a case of infectious disease, but this is the exception that proves the rule.

Errors of diagnosis are, of course, made but they are few and far between and the added precaution of usually referring the case to Hospital enables a wrong diagnosis to be cleared up eventually.

If, however, there is any error in the number of notifications received at the Public Health Department there can be none, as a rule, in the number of deaths certified to these diseases and, as is well known, more reliance can be placed on the death returns.

The number of notifications of infectious diseases received at the Public Health Department during the year 1951 numbered 392, 48 more than were received during the year 1950, but the number of deaths certified to these diseases were 121, 8 less than the figure 129, for the year 1950.

Analysis of the table showing these returns reveals the fact that there were 18 more notifications of enteric fever, 17 more of pneumonia, and 16 more of pulmonary tuberculosis than during the year 1950 ; and 28 fewer deaths due to pulmonary tuberculosis and 7 fewer to tuberculosis (other forms) than in the previous year, though 26 more deaths from pneumonia were recorded in the year under report.

Summing up, it might be stated that whilst the morbidity rate rose slightly during 1951, 3.67 as compared with 3.3 per 1,000 population, the mortality rate declined from 1.24 to 1.13 per 1,000 population.

It is interesting to note that during the year under review 81 cases of pneumonia (all forms) were notified and 80 deaths certified, giving a case mortality of nearly 100 per cent., an impossible figure seeing that deaths attributable to lobar pneumonia and broncho-pneumonia have declined considerably since the introduction of penicillin and the sulpha drugs.

The table listed hereunder demonstrates once more, if indeed demonstration were necessary at all, that the most insanitary and the most congested and unhealthy areas, and, at the same time, the unsewered portion of the City, i.e., the East Dry River, Belmont and St. James sub-districts furnished the largest number of cases and deaths from these notifiable infectious diseases.

Here again we see the need for permanent major works designed to remedy the many insanitary features that abound in these districts and at the very least to get rid of the highly unsatisfactory and most inconvenient cesspit system.

## Infectious Diseases—Notifications and Deaths—1941 to 1951

INFECTIOUS DISEASES	NOTIFICATIONS				DEATHS			
	Average 1941-45	Average 1946-50	1950	1951	Average 1941-45	Average 1946-50	1950	1951
Diphtheria ... ..	25.4	20.4	37	28	3.4	2.0	3	1
Enteric Fever ... ..	43.6	39.4	14	32	11.4	5.6	3	5
Pulmonary Tuberculosis ...	168.8	176.2	127	143	143.2	109.2	55	27
Tuberculosis (Other forms) ...	11.4	8.2	5	3	8.4	11.0	14	7
Pneumonia (All forms) ...	189.6	72.2	64	81	113.0	60.8	54	80
Ophthalmia Neonatorum ...	16.0	5.6	1	8	—	—	—	—
Chicken Pox ... ..	47.6	91.4	96	95	—	—	—	—
Encephalitis Lethargica ...	—	—	—	—	0.8	0.4	—	—
Acute Ant. Poliomyelitis ...	8.2	1.8	—	—	1.8	0.4	—	—
Puerperal Fever ... ..	12.6	4.0	—	—	3.2	1.0	—	1
Cerebro-Spinal Fever ...	0.8	1.2	—	2	0.6	0.6	—	—
TOTAL ... ..	524	420.4	344	392	285.8	191	129	121
Rate per 1,000 population ...	5.15	4.20	3.30	3.67	2.81	1.91	1.24	1.13



Distribution of Cases and Deaths from Notifiable Infectious Diseases, 1951

DISEASES	CITY PROPER		ST. CLAIR		EAST DRY RIVER		BELMONT		WOODBROOK		ST. JAMES	
	Cases noti- fied	Deaths	Cases noti- fied	Deaths	Cases noti- fied	Deaths	Cases noti- fied	Deaths	Cases noti- fied	Deaths	Cases noti- fied	Deaths
Diphtheria ...	3	—	1	—	8	—	10	—	4	1	2	—
Enteric Fever ...	9	—	—	—	8	3	2	—	5	2	8	—
Pulmonary Tuberculosis ...	46	7	1	1	33	4	27	6	13	1	23	8
Tuberculosis (Other forms)...	2	2	—	—	1	3	—	—	—	—	—	2
Pneumonia (All forms) ...	16	17	—	—	23	20	23	12	3	5	16	26
Ophthalmia Neonatorum ...	1	—	—	—	2	—	2	—	1	—	2	—
Chicken Pox ...	24	—	—	—	21	—	32	—	4	—	14	—
Encephalitis Lethargica ...	—	—	—	—	—	—	—	—	—	—	—	—
Acute Ant. Poliomyelitis ...	—	—	—	—	—	—	—	—	—	—	—	—
Puerperal Fever ...	—	—	—	—	—	—	—	—	—	1	—	—
Cerebro-Spinal Fever ...	—	—	—	—	2	—	—	—	—	—	—	—
TOTAL ...	101	26	2	1	98	30	96	18	30	10	65	36
Rate per 1,000 population in each Sub-district ...	2.74	0.71	1.11	0.56	4.13	1.26	5.19	0.97	2.21	0.74	5.17	2.87

Notifiable Infectious Diseases—Home and Hospital Deaths, 1951

DISEASES				DEATHS			Hospital Deaths per cent. of Total Deaths	Corresponding percentage for the year 1950
				At Home	At Hospital	Total		
Diphtheria ...	...	...	...	1	—	1	—	66.66
Enteric Fever ...	...	...	...	—	5	5	100.00	66.66
Pulmonary Tuberculosis ...	...	...	...	22	5	27	18.52	27.27
Tuberculosis (Other forms) ...	...	...	...	1	6	7	85.71	78.57
Pneumonia (All forms) ...	...	...	...	42	38	80	47.50	42.59
Puerperal Fever ...	...	...	...	1	—	1	—	—
Cerebro-Spinal Fever ...	...	...	...	—	—	—	—	—
Acute Poliomyelitis ...	...	...	...	—	—	—	—	—
Encephalitis Lethargica ...	...	...	...	—	—	—	—	—
TOTAL ...	...	...	...	67	54	121	44.63	41.09

TUBERCULOSIS

Pulmonary Tuberculosis

It is true to state that the public conscience is being successfully awakened to the ravages of tuberculosis, and the various measures of prevention and treatment that have been and are being progressively applied are beginning to bear fruit.

The Chest Clinic at the old U.S.O. Building in Wrightson Road continues to function satisfactorily and the Masson Hospital is nearly always full, patients having to wait for days, if not weeks, for a vacant bed. The Caura Sanatorium has its full quota and the waiting list is beginning to lengthen. When this is coupled with the fact that contacts are being constantly sorted out and subjected to clinical and radiological examination, and preventive measures are being consistently applied by public health nurses and sanitary inspectors, it is easy to see that the dark clouds which once hung over the unfortunate victim of tuberculosis are beginning to lift and the horizon is clearer and the outlook brighter.

The Association for the Prevention of Tuberculosis has been able to redouble its efforts and expand its work with the granting of an increased subvention by Government and with the increased flow of funds for its work which has taken place during the past year.

Welfare and after-care are receiving more and more consideration and more funds are being distributed to the poor and needy sufferers to help them over the very difficult times that they must inevitably pass on their way to complete recovery.

Rehabilitation, particularly, is being actively pushed and cases well enough to undertake rehabilitation work are being taught new and more suitable kinds of employment with a view to enabling them to earn at least part of their living in the difficult and troublous period that follows recovery from a tuberculous infection.

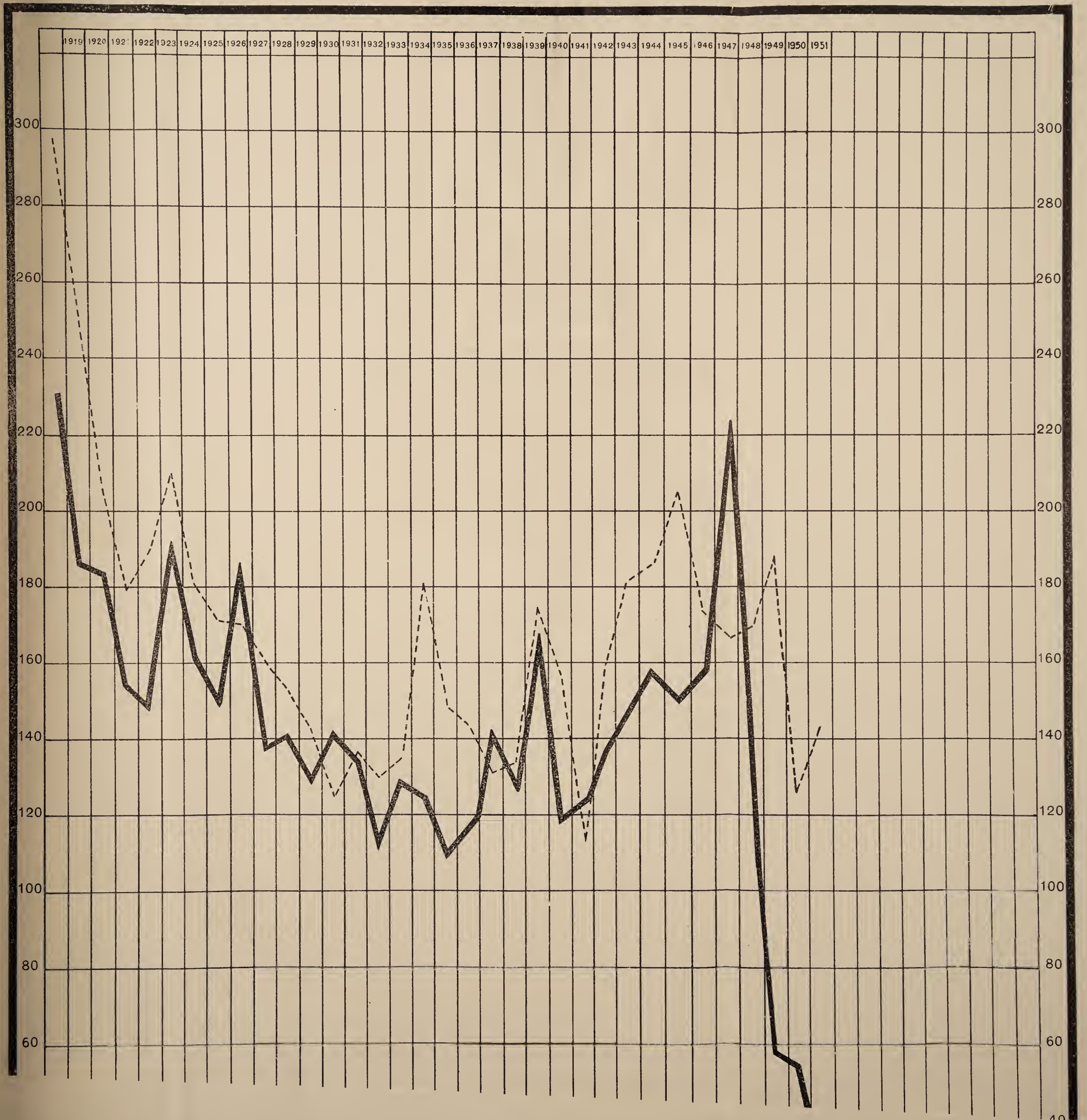
More and more funds are required to carry out this work to the fullest possible extent, but perhaps of even greater importance than funds is the need for voluntary workers and for teachers and demonstrators of handicraft and other forms of employment that are within the capacity of the patient.

That this work is achieving the success that it deserves is amply demonstrated by the fact that 143 notifications of pulmonary tuberculosis were received at the Public Health Department and 27 deaths recorded during the year under report.



Chart E  
Port of Spain

Pulmonary Tuberculosis — Notifications and Deaths 1918-1951







Compare these figures with the corresponding for the year 1950, 127 and 55 respectively, and it will be seen that progress is being registered though the figures for one year cannot be relied upon to possess any real significance.

But it is of interest to note that this is the third successive year that deaths certified to pulmonary tuberculosis have been well below the 100 mark. In fact the death rate curve has shown a steep and steady fall since the year 1947.

The actual death rate worked out at .25 per 1,000 population in 1951 as compared with .55 per 1,000 population the year before.

Pulmonary Tuberculosis—Notifications and Deaths, 1918-51

Period						Notifications	Deaths	Death Rate per 1,000 population
Year 1918	...	...	...	...	...	299	233	3.43
Yearly Averages :								
1919-23	...	...	...	...	...	207	173.2	2.65
1924-28	...	...	...	...	...	167.6	154.6	2.38
1929-33	...	...	...	...	...	133.6	129	1.85
1934-38	...	...	...	...	...	147.4	124.6	1.62
Average 1919-38	...	...	...	...	...	163.9	145.4	2.13
Year 1939	...	...	...	...	...	175	167	1.85
1940	...	...	...	...	...	155	118	1.28
1941	...	...	...	...	...	113	124	1.27
1942	...	...	...	...	...	157	136	1.37
1943	...	...	...	...	...	182	148	1.45
1944	...	...	...	...	...	186	158	1.52
1945	...	...	...	...	...	206	150	1.41
1946	...	...	...	...	...	173	158	1.57
1947	...	...	...	...	...	222	167	1.74
1948	...	...	...	...	...	170	108	1.09
1949	...	...	...	...	...	189	58	0.57
1950	...	...	...	...	...	127	55	0.53
1951	...	...	...	...	...	143	27	0.25

Non-Pulmonary Tuberculosis

There is now greater hope for this form of tuberculosis since the discovery of streptomycin, and many cases which were doomed before its introduction now stand a fair chance of being cured, even though certain untoward after effects may ensue.

More deaths are usually certified to this form of tuberculosis than notifications of the disease are received from practitioners seeing that the diagnosis is not always easy, and very often it is only at post-mortem examination that the real cause of the illness and death is discovered to be tuberculosis.

This is the form of tuberculosis that usually arises from the consumption of infected meat and milk, from diseased cattle and other bovines, and great care is necessary both before and after slaughter to insure that such diseased cattle are not used as the food of man.

The pasteurisation of milk is a useful safeguard against infected milk reaching the alimentary tract of humans, but pasteurisation must be properly and carefully done and the plant and its working must be carefully supervised if a reliable product is to be obtained.

The tuberculin testing of cows and now of goats will show whether these bovine animals are infected or not, and enable the necessary measures directed to the checking of the spread of this disease to be instituted.

Non-Pulmonary Tuberculosis—Forms, Notifications and Deaths, 1951

Forms						Notifications	Deaths
Miliary Tuberculosis	...	...	...	...	...	—	1
Tuberculosis of Meninges	...	...	...	...	...	2	3
Do. Kidneys	...	...	...	...	...	—	1
Do. Spine	...	...	...	...	...	1	2
Total	...	...	...	...	...	3	7

Deaths from Non-Pulmonary Tuberculosis 1924-51

Period						Deaths	Rate per 1,000 population
Yearly Averages :							
1924-28	...	...	...	...	...	15	0.23
1929-33	...	...	...	...	...	15.2	0.22
1934-38	...	...	...	...	...	10	0.13
Average 1924-38	...	...	...	...	...	13.4	0.19
Year 1939	...	...	...	...	...	15	0.17
1940	...	...	...	...	...	14	0.15
1941	...	...	...	...	...	6	0.06
1942	...	...	...	...	...	4	0.04
1943	...	...	...	...	...	9	0.09
1944	...	...	...	...	...	10	0.10
1945	...	...	...	...	...	13	0.12
1946	...	...	...	...	...	14	0.14
1947	...	...	...	...	...	11	0.11
1948	...	...	...	...	...	6	0.06
1949	...	...	...	...	...	10	0.10
1950	...	...	...	...	...	14	0.13
1951	...	...	...	...	...	7	0.07

ENTERIC FEVER

This is an infectious disease to which public health officers devote the greatest study and attention because of the important bearing that a high incidence of and death rate from typhoid fever has on the general state of environmental hygiene obtaining in the area in question. For it is an undoubted fact that where the general state of sanitation is low and particularly where the disposal of sewage is so inefficient that contaminated faecal matter can find its way, either through the consumption of contaminated foodstuffs or by drinking infected water, into the alimentary tract of the individual, there will invariably be found a high incidence of typhoid fever and a corresponding high death rate.

The aim of all modern methods of sanitation and of the water-borne method of sewage disposal particularly, is to lower the incidence of the bowel-filth diseases, of which typhoid fever is perhaps the most important, and eventually to eliminate them altogether.

The water-borne sewerage system ensures the speedy removal of faecal matter and, particularly, infected faecal matter from inhabited premises and their ultimate disposal in a place where they can exert no harmful effect.

It is obvious that any system of conservancy which permits faecal matter to be retained in and about premises carries with it a grave potential risk that the faecal matter, if by any chance it happens to be infected, may cause the spread of typhoid fever, dysentery, and other bowel-filth diseases.

In the City of Port-of-Spain where less than one-half of the Urban Sanitary District is sewered, there still remains the privy cesspit system of disposal with a certain number of premises being served by local sewerage systems, septic tanks, or what is much more usual, cesspools.

It is clear, therefore, that in these unsewered areas the risk of the spread of typhoid fever is a real one ; a risk that is ever present but very considerably diminished by the constant oiling and disinfecting of these areas which is part of the regular routine work of the Public Health Department, but which is intensified whenever a case of typhoid fever occurs in the district.

In these circumstances oiling of all the privy cesspits within a circle a mile wide is immediately undertaken in addition to measures of disinfection applied to the premises themselves where the case occurred and to the particular pit where it is almost certain that infected faecal matter has been deposited.

By these and other measures the incidence of typhoid fever has been kept down and fewer cases are occurring each year, but if typhoid fever is to be eliminated from the Urban Sanitary District the whole of the City will have to be sewered and a sufficiency of water supplied for the immediate flushing of lavatories and the removal of all contaminated matter from the affected premises.

Analysis of the table hereunder detailed will demonstrate the fact that a very substantial decline in the incidence of typhoid fever has taken place with the chlorination of the water supply which was instituted in the year 1924, and from the 495 cases and 104 deaths in the year 1918 to the 32 cases and 3 deaths in the year 1951 is a very long cry indeed.

Typhoid fever within the City is almost certainly not water-borne, the water supply being kept potable by the chlorination of all sources and by the maintenance of a small residual in the distribution system to make sure that any possible contamination of the distribution system can be immediately dealt with.

The cases of typhoid fever that occur are in the large majority almost certainly due to the consumption of infected foodstuffs, particularly that type of foodstuff which is usually eaten raw like water-cress, cabbage, lettuce, spinach, tomatoes, &c., the vegetable gardens from which they are derived being often manured with human excrement. A few are contacts to a case which has either been neglected, missed, or not diagnosed in the earlier stages.

The last big epidemic of typhoid fever, which took place in the Colony originated in 1933 in the San Juan-Barataria District, and spread eventually to the City, was proved to be due to the consumption of infected water which was taken from the San Juan River.

ENTERIC FEVER

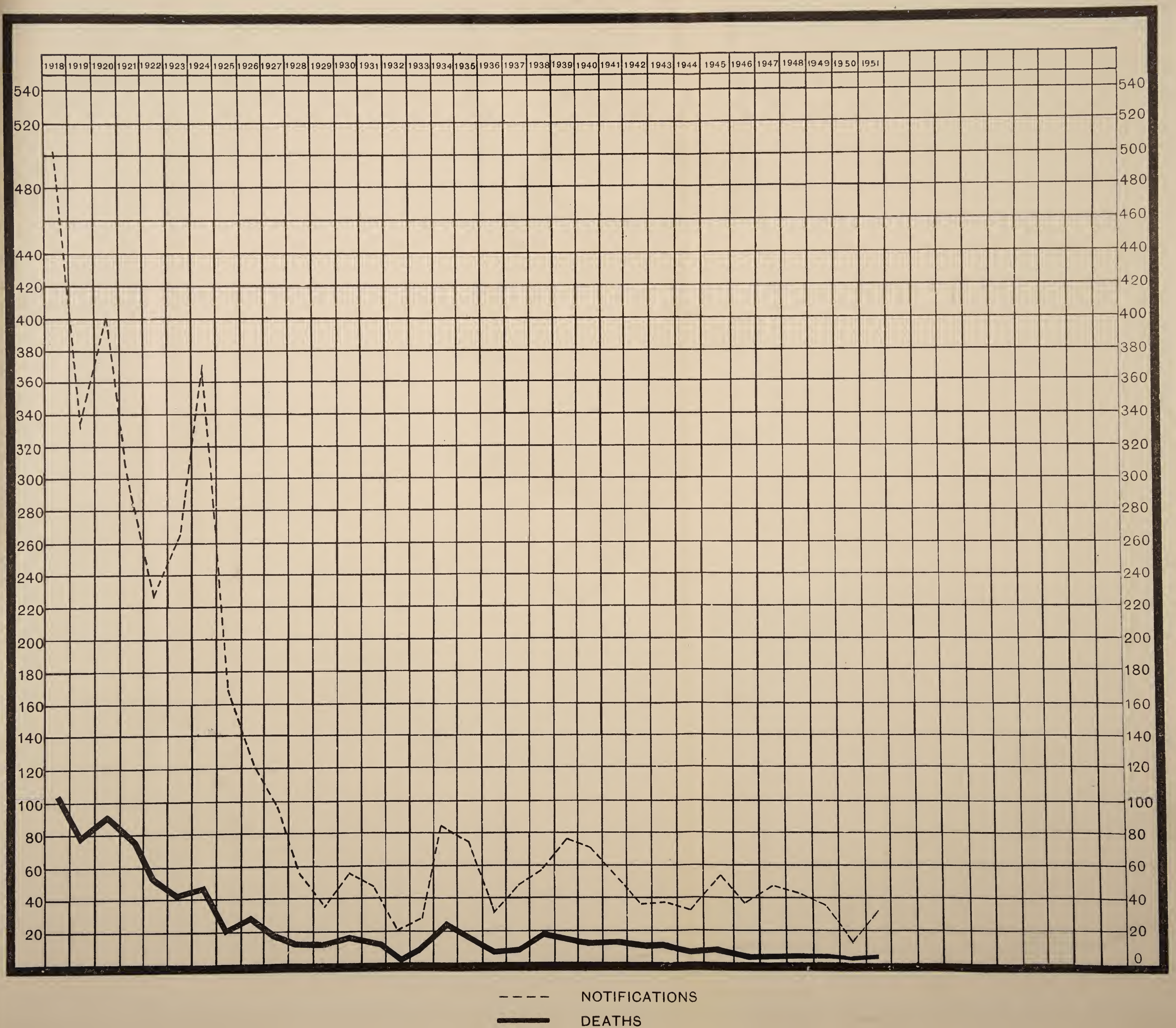
Notifications and Deaths, 1918-51

Period				Notifications	Deaths	Death Rate per 1,000 population
Year 1918	...	...	...	495	104	1.52
Yearly Averages :	...	...	...			
1919-23	...	...	...	301.8	67.8	1.03
1924-28	...	...	...	162.4	25.2	0.39
1929-33	...	...	...	37	10.8	0.16
1934-38	...	...	...	59.8	14.6	0.19
Average 1919-38	...	...	...	140.3	29.6	0.44
Year 1939	...	...	...	75	15	0.17
1940	...	...	...	70	11	0.12
1941	...	...	...	56	14	0.14
1942	...	...	...	37	12	0.12
1943	...	...	...	38	12	0.12
1944	...	...	...	32	9	0.09
1945	...	...	...	55	10	0.09
1946	...	...	...	37	8	0.08
1947	...	...	...	68	7	0.07
1948	...	...	...	42	5	0.05
1949	...	...	...	36	5	0.05
1950	...	...	...	14	3	0.03
1951	...	...	...	32	5	0.05



Chart F  
Port of Spain

Enteric Fever—Notifications and Deaths 1918-1951







## Inoculation of Enteric Fever Contacts, 1951

## T.A.B. Injections

Year					Number Receiving one Injection	Number Receiving two Injections	Total
1947	...	...	...	...	250	222	472
1948	...	...	...	...	85	61	146
1949	...	...	...	...	101	44	145
1950	...	...	...	...	64	32	96
1951	...	...	...	...	329	249	578

## PNEUMONIA

Medical Officers of health are often asked the question why is pneumonia in its many and varied forms still a notifiable disease ?

Practitioners do not understand the reason why a disease which, in the majority of cases nowadays is so amenable to the new drugs and antibiotics like the sulpha drugs, penicillin, aureomycin, streptomycin, and which is usually kept at home under the care of the practitioner who has notified the case, and for which very little in the way of preventive treatment is available, has to be notified to public health officers who take perhaps a casual and passing notice only of the case.

The answer is that in the days when pneumonia was proclaimed a notifiable disease it constituted a real menace to the health of the residents of the Urban Sanitary District, and because of the congestion and overcrowding of the East Dry River, Belmont, and St. James Districts where the majority of cases occurred, spread of the disease from person to person by direct contact was not an uncommon feature.

Besides it was often necessary and at times still is today, to remove cases from these districts to Hospital, not only for the sake of the ailing patient himself, but also to enable proper isolation to take place, and to permit disinfection to be undertaken by the Disinfection Unit of the Department.

In these areas where housing accommodation is so inadequate and where poverty and malnutrition are so prevalent coupled with alcoholism which has such an adverse effect on the outcome of the disease, pneumonia in its various forms is a serious disease with a high mortality, often bringing in its trail such sequelae as "consumption", heart disease, anaemia, and debility.

It is in these circumstances that preventive measures are so important and a "stitch" in time may be the means whereby many more cases are avoided, and much subsequent suffering and misery obviated.

In the year under report 81 cases of pneumonia (all forms) were notified and 80 deaths recorded, which shows clearly that pneumonia is a "badly notified" disease seeing that the mortality from the disease has been reduced considerably since the introduction of the newer drugs and antibiotics referred to above.

There must, inevitably, be many more cases occurring in the Urban Sanitary District than are notified by practitioners bearing in mind the fact that greater reliability can usually be placed on the death returns than on the notification forms.

## PNEUMONIA—(All Forms)

## Notifications and Deaths, 1922-51

Period					Notifications	Deaths	Death Rate per 1,000 population
Yearly Averages :							
1922-26	...	...	...	...	111.8	78	1.23
1927-31	...	...	...	...	69.8	53.4	0.79
1932-36	...	...	...	...	155.4	80.6	1.10
Average 1922-36	...	...	...	...	112.3	70.7	1.04
Year 1937					125	85	1.10
1938					101	70	0.83
1939					107	59	0.65
1940					69	63	0.68
1941					138	88	0.90
Average 1937-41	...	...	...	...	108	73	0.83
Year 1942					332	152	1.53
1943					251	149	1.46
1944					109	97	0.93
1945					118	79	0.74
1946					87	61	0.61
1947					75	64	0.67
1948					62	51	0.52
1949					73	74	0.73
1950					64	54	0.52
1951					81	80	0.75



DIPHThERIA

Diphtheria is now assuming an importance in the scheme of things that medical officers of health were not wont to attribute to it a decade ago.

It would appear that more cases are occurring nowadays and the organism which used to be of the mitis type is undergoing some change to a more virulent type.

Certainly more laryngeal cases are being seen and more tracheotomies are needed nowadays than was the case 10 or 15 years ago.

The position is such that a campaign of active immunisation may soon have to be undertaken in schools and clinics, a course that would hardly have been justified 10 or 15 years ago in view of the small number of cases occurring and the general mildness of the disease.

Parents are getting more and more educated to the seriousness of the disease and even today whenever a case of diphtheria is notified it is customary to get all the contacts to come willingly and promptly into the Department and active immunisation is undertaken, APT two doses being given to children, and TAF three doses to adults.

This is considered preferable to giving antitoxic serum which confers only a passive immunity of short duration, tends to the development of antitoxic and anaphylactic reactions later on if serum has to be administered to the developed case, and may serve to mask the development of clinical cases making them more dangerous, as carriers of the disease.

Twenty-eight (28) cases of Diphtheria were notified in the year under review with one death. The largest number of cases notified was in the year 1939 when 61 cases were notified and the greatest number of deaths certified to the disease was in 1945 when five deaths were recorded, giving a death rate of .05 per 1,000 population.

Analysis of the returns shows that 10 of the cases came from the Belmont District, 8 from the East Dry River District, 4 from Woodbrook, 3 from the City proper, 2 from St. James and 1 from St. Clair.

The much larger number of cases furnished by the Belmont and the East Dry River Districts, is in keeping with the general state of insanitation, overcrowding and congestion and with the general state of poverty and malnutrition obtaining in these sub-districts.

DIPHThERIA

Notifications and Deaths, 1917-51

Period					Notifications	Deaths	Death Rate per 1,000 population
Yearly Averages :							
	1917-21	...	...	...	11.8	1.4	0.02
	1922-26	...	...	...	14.8	2	0.03
	1927-31	...	...	...	23.8	1.6	0.02
	1932-36	...	...	...	29.8	2.2	0.03
Average 1917-36					20	1.8	0.03
Year	1937	...	...	...	30	4	0.05
	1938	...	...	...	16	3	0.04
	1939	...	...	...	61	2	0.02
	1940	...	...	...	37	2	0.02
	1941	...	...	...	30	2	0.02
Average 1937-41					34.8	2.6	0.03
Year	1942	...	...	...	18	3	0.03
	1943	...	...	...	40	4	0.04
	1944	...	...	...	19	3	0.03
	1945	...	...	...	20	5	0.05
	1946	...	...	...	22	2	0.02
	1947	...	...	...	23	2	0.02
	1948	...	...	...	9	1	0.01
	1949	...	...	...	11	2	0.02
	1950	...	...	...	37	3	0.03
	1951	...	...	...	28	1	0.01

CHICKEN POX

Chicken Pox is not an infectious disease that gives rise to much worry or concern to public health officers; cases are usually mild and straightforward and there has never been a return to this Department where chicken pox has been the principal cause of death; this, of course, is possible in weak and debilitated children when complications like broncho-pneumonia or encephalitis set in, but ever since the establishment of the Local Authority which enabled statistics to be carefully collected and properly compiled, chicken pox has never been responsible for a single death.

The real reason why it is important to notify a case of chicken pox is that a mild case of small pox may every now and then simulate closely a case of chicken pox and diagnosed as such with the dire consequences of a " missed case of small pox " and all its subsequent effects.

We are fortunate that so far nothing of the sort has ever occurred within the limits of the Urban Sanitary District.

That is why medical officers of health try to see as many cases of chicken pox as possible and would like, if the necessary beds were available, to have all cases of chicken pox removed to hospital for observation and treatment.

This is especially desirable when the dwelling is overcrowded and two or more cases have already occurred and more are likely to occur.

During the year 1951, 95 cases of chicken pox were notified to the Department as compared with 96 the year before. This may be considered a mild epidemic, as it was last year, but the largest number of cases ever notified was 196 in the year 1946 when a major outbreak occurred.

Of these cases 32 occurred in Belmont, 24 in the City proper, 21 in the East Dry River, 4 in Woodbrook, and 14 in St. James.

#### Chicken Pox—Notifications, 1924-51

Period			Notifications	Period			Notifications
Yearly Averages :				Year			
1924-28	...	...	19.8	1944	...	...	33
1929-33	...	...	41	1945	...	...	122
1934-38	...	...	110.4	1946	...	...	196
1939-43	...	...	42.6	1947	...	...	57
				1948	...	...	51
				1949	...	...	57
				1950	...	...	96
				1951	...	...	95

#### OTHER NOTIFIABLE INFECTIOUS DISEASES

Two (2) cases of cerebro-spinal fever were reported to the Department during the year under report ; these cases, both of which recovered, were all from the East Dry River District.

No notifications of Acute Anterior Poliomyelitis, of Encephalitis Lethargica, or of Paralytic Rabies were received at the Public Health Department during 1951.

No cases of Plague, Cholera, Typhus, Yellow Fever or of Small Pox, either Variola Major or Variola Minor (Alastrim) was reported to the Department during the year under report.

#### ACUTE ANTERIOR POLIOMYELITIS

##### Notifications and Deaths, 1927-51

Year	No. of cases reported	Deaths	Year	No. of cases reported	Deaths	Year	No. of cases reported	Deaths
1927-29	—	—	1936	3	—	1941	15	4
1930	5	1	1937	10	1	1942	26	3
1931	—	2	1938	2	—	1943-44	—	—
1932	3	—	1939	1	—	1945	—	1
1933-35	—	—	1940	—	—	1946	1	—
						1947	—	1
						1948	3	2
						1949	4	—
						1950	—	—
						1951	—	—

#### NON-NOTIFIABLE INFECTIOUS DISEASES

There is no definite scientific reason why some diseases are classified as notifiable infectious diseases and others as non-notifiable infectious diseases.

In fact some of the diseases listed under the heading of “ non-notifiable ” may be much more infectious than some of those classified as notifiable, and in cases of unusual prevalence may even be proclaimed “ notifiable ” in order to give public health authorities an opportunity of determining where and in what numbers they are occurring so that preventive measures directed to limiting their spread as well as to preventing altogether their occurrence may be applied at the earliest possible opportunity. Such is the case with measles, whooping cough and influenza.

These diseases can on occasions present major public health problems and tax the energy and resources of public health authorities. Several pandemic waves of influenza have been known to sweep the world leaving numbers of deaths in their trail.

Then again the more chronic of the diseases usually listed under this heading are the cause of the major public health problems which affect the civilized world at the present time, and to eliminate which extensive public health schemes have been prepared by various health organisations including the World Health Organisation, and are now in the process of being actively executed in many of the countries of the world.

I refer to malaria, syphilis, and hookworm disease.

Large amounts of money are being spent now in nearly every country on one or other comprehensive scheme designed to get rid of one or other or of all of these diseases.



Bearing these facts in mind it seems a mistake to rely on the death returns only in order to form some idea of the prevalence of these diseases, returns which often give only an inadequate idea of their existence seeing that many deaths attributable to them masquerade under other headings like aneurysm, cerebral thrombosis, hemiplegia which are often due to syphilis ; liver abscess which is often due to dysentery ; anaemia, the invariable result of hookworm disease ; and liver disease caused by malaria.

Notifications would go a long way to solve this difficulty, but one must admit that there are other problems associated with these diseases which would be aggravated by notification, for example the social aspect of syphilis, the relative accuracy of malaria notifications, &c., &c.

During the year under report 17 deaths certified to these diseases were recorded in the Department, 11 of which were due to syphilis and 4 to influenza ; malaria and dysentery claimed one each.

#### Non-Notifiable Infectious Diseases—Home and Hospital Deaths, 1951

DISEASES	DEATHS			Hospital Deaths per cent. of Total Deaths	Corresponding percentage for the year 1950
	At Home	At Hospital	Total		
Malaria ... ..	1	—	1	—	—
Whooping Cough ... ..	—	—	—	—	—
Influenza ... ..	4	—	4	—	25.00
Dysentery ... ..	1	—	1	—	100.00
Ankylostomiasis ... ..	—	—	—	—	—
Syphilis ... ..	6	5	11	45.45	12.50
Leprosy ... ..	—	—	—	—	—
TOTAL ... ..	12	5	17	29.41	28.57

#### MALARIA

The position in regard to malaria remains substantially the same as it was in the year before, and which was detailed in my report for the year 1950.

To repeat, there is very little malaria within the limits of the City and what there is, is due to importation from outside, i.e., cases which have acquired malaria outside the City and which come into the City for treatment, and old febricitants who once lived in a malarious area but who have now taken up residence within the City's limits and who get periodic recrudescences of an infection, due to the lowering of resistance, which was never really eradicated.

That does not mean to say, of course, that no anophelene mosquitoes are to be found within the City's limits ; in the wet season, particularly, it is possible to pick up mosquito larvae of the anophelene species in the swampy areas at the extreme eastern and western limits of the City, but these have never created a problem and they have always been easily brought under control by the time honoured methods of oiling, draining, canalising, &c., &c.

The adjoining areas, however, of the Laventille and Cocorite Swamps continue to be a source of great potential danger to the City in so far as malaria is concerned and I regret to state that none of the hopes that I expressed in my last report have as yet materialised.

No permanent major works of any kind have as yet been started to get rid once and for all of the malaria problem in the Cocorite Swamp and whilst the Malaria Division of the Health Department of Government continued their splendid work of control in the Cocorite area particularly, for which the City owes them a great debt of gratitude, still the cost of ten thousand dollars a year is too high to pay for measures which are essentially of a temporary nature only.

Reclamation of the Cocorite Swamp is long overdue, a project that would result eventually in the laying out of building lots and in the development of a residential area destined to relieve the congestion in the City and its suburbs.

I would be failing in my duty were I not to record the gratitude of the Local Sanitary Authority to the Malaria Division of the Health Department of Government for the close co-operation and ready assistance given in all the various mosquito problems that affect the City.

As has been reported before this Colony is being surely and rapidly freed of malaria as a result of the intensive campaign now being executed by the Malaria Division of the Health Department of Government and both rural and urban practitioners continue to refer to the lowered incidence of malaria.

Malaria will soon become a rarity because of the energy and drive with which a major public health problem has been and is being tackled.

The benefits to industry in the saving of a countless number of man hours previously lost, to agriculture in the opening up to commercial intercourse and to cultivation of areas once heavily infested with malaria, to animal husbandry in the increased incentive thereby given to the raising of cattle, pigs, and sheep, can more easily be imagined than expressed.



In the year 1951 one death was certified to malaria, a resident in the St. James District. Compare this with 26 deaths certified in the year 1937 when I became head of the Public Health Department, and it can easily be seen what great strides have been made.

Malaria—Local Distribution of Deaths, 1951

Sub-districts								Deaths
City Proper	...	...	...	...	...	...	...	—
St. Clair	...	...	...	...	...	...	...	—
East Dry River	...	...	...	...	...	...	...	—
Belmont	...	...	...	...	...	...	...	—
Woodbrook	...	...	...	...	...	...	...	—
St. James	...	...	...	...	...	...	...	1
Total	...	...	...	...	...	...	...	1

SYPHILIS

The Venereal Disease campaign initiated by Government with the help, advice, and direction of Colonel O. C. Wenger in 1943 and supported then by funds provided by the Development and Welfare Organisation, but now under the sole care and control of the Venereal Diseases Division of the Health Department of Government continued to function satisfactorily during the year under report.

The Caribbean Medical Centre which is now situated in the old U.S.O. Building in Wrightson Road remains a great boon to the residents of the City, and more and more enquiries are being made at the Public Health Department by patients who desire the help and guidance of this Centre.

The result of the activities of this Division and, particularly, of the propaganda that is being actively undertaken to educate the City's population to the ravages of venereal disease has been so successful that it is difficult nowadays to encounter a case of primary syphilis, and fewer and fewer food handlers are found to be suffering from venereal disease with each succeeding year.

The problem, however, that still awaits complete solution is how to round up and bring in for treatment those recalcitrant cases that are either careless as to the harm that they are capable of doing to themselves and others, or who are actually perverse in the persistent efforts they make to spread the disease in spite of the knowledge that they are in a highly infectious state. Persuasion seems to have very little effect on these people and often one feels that the only effective method is compulsion.

One important result that is being achieved by the Venereal Disease Division is the compiling of reliable statistics which has been brought about by more accurate diagnosis on the one hand and a better appreciation of the underlying basic causes of certain clinical manifestations on the other hand, and, as a direct result, syphilis is being more and more recognised as playing a greater and greater part in those chronic diseases that affect the heart and blood vessels like aneurysm, coronary thrombosis, arterio-sclerosis; the brain and spinal cord like cerebral thrombosis, hemiplegia, meningitis; and the kidneys and liver like chronic nephritis and cirrhosis of the liver.

Adequate treatment of the underlying disease is likely to go a long way in preventing and even in eliminating the serious after-effects of these various clinical manifestations.

During the year 1951 eleven (11) deaths due to syphilis were reported to the Public Health Department; this compares unfavourably with 8 in the previous year, 1950.

Deaths from Syphilis—1918-51

Period							Deaths	Rate per 1,000 population
Yearly Averages :								
1918-22	...	...	...	...	...	...	16.2	0.24
1923-27	...	...	...	...	...	...	56.8	0.88
1928-32	...	...	...	...	...	...	28.2	0.41
1933-37	...	...	...	...	...	...	21.8	0.29
Average 1918-37	...	...	...	...	...	...	24.6	0.37
Yearly Average 1938-42	...	...	...	...	...	...	24.6	0.27
1943	...	...	...	...	...	...	29	0.28
1944	...	...	...	...	...	...	36	0.35
1945	...	...	...	...	...	...	22	0.21
1946	...	...	...	...	...	...	20	0.20
1947	...	...	...	...	...	...	21	0.22
1948	...	...	...	...	...	...	8	0.08
1949	...	...	...	...	...	...	7	0.07
1950	...	...	...	...	...	...	8	0.08
1951	...	...	...	...	...	...	11	0.10

DYSENTERY, DIARRHOEA AND ENTERITIS

These three diseases are usually classified as bowel-filth diseases because they are usually transmitted from the sick to the healthy via the medium of infected excreta.

If such infected excreta gets on to the hands and fingers of a healthy individual, the causative organisms may be swallowed and be the means whereby the individual falls a victim to the infection and becomes another case of the disease.



This does happen occasionally when healthy persons come into contact with a case of dysentery, diarrhoea or enteritis and they have not taken care to disinfect their hands and fingers, but the usual source of infection is contaminated foodstuffs, particularly vegetables of the green variety, which have been manured with contaminated excreta or watered with infected water, and milk which has not been pasteurised or boiled and to which infected flies have had access.

These diseases are, of course, ultimately due to organisms, either a protozoon as in amoebic dysentery or to bacilli of the salmonella group, and are responsible for a good deal of disability and even for a certain number of deaths.

Children, particularly, fall easy prey to these organisms especially in hot dry weather when multiplication takes place rapidly and the possibility of infection of foodstuffs an ever-present danger.

The obvious remedy is to adopt measures whereby a clean wholesome product is assured, to secure the pasteurisation of milk and ice cream, and subsequently to protect the foodstuffs from dirt, dust, and contamination by vermin, flies and other insects.

During the year 1951 one death from dysentery was recorded at the Public Health Department.

There must, of course, be quite a few cases occurring within the limits of the Urban Sanitary District in the unsewered section of the City particularly.

Forty-two (42) death returns certified to diarrhoea and enteritis were received during the year under report. Eighteen of these were from premises situated in the East Dry River District, eleven in the St. James, and six in the Belmont Sub-districts.

## Deaths from the Dysenteries—1918-51

[illegible]

### Deaths from Diarrhoea and Enteritis, 1918-51

[illegible]

### Diarrhoea and Enteritis—Deaths in Sub-districts

Sub-districts									Deaths
City Proper	...	...	...	...	...	...	...	...	6
St. Clair	...	...	...	...	...	...	...	...	18
East Dry River	...	...	...	...	...	...	...	...	6
Belmont	...	...	...	...	...	...	...	...	1
Woodbrook	...	...	...	...	...	...	...	...	11
St. James	...	...	...	...	...	...	...	...	42
Total									...

## OTHER PRINCIPAL CAUSES OF DEATH

## Cardiac and Vascular Diseases

If there is one thing that is remarkable in the vital statistics that have been compiled in the Public Health Department from the year 1917 when the Department was established, it is the fact that more and more deaths with each succeeding year have been certified to cardiac and vascular diseases and the heavy toll of mortality that is being exacted by these diseases continues unabated.

In fact it would appear that the price that has to be paid for better general health and improved environmental hygiene is the increased vulnerability of the delicate tissues of the heart and blood-vessels to the chronic system diseases and especially to the stress and strains, mental and physical, which are part and parcel of the complexity of modern life and which play an important part in the causation of these diseases.

It is true that the older the tissue, the more susceptible it becomes to disease and accident, a fact that is well exemplified in the table listed hereunder, but there seems to be some additional explanation for this rising tide of mortality that is not quite clear. If the causes are not clear, the measures whereby the disease can be prevented will, of course, be equally not clear, and so it is that very little is being done and can, in fact, be done to check the mortality from these diseases.

But propaganda and health education can be of some help in teaching the afflicted to live within the limits of their resources and to avoid those stresses and strains, that worry and anxiety, that contribute so much to the final scene.

Three hundred and fifteen (315) deaths due to cardiac and vascular diseases were recorded in the Public Health Department during the year 1951, of which 205 were in persons over 60 years of age and 83 in the 41-60 age group.

Deaths from Cardiac and Vascular Diseases in Age Groups—1951

Forms	0-20 years	21-40 years	41-60 years	Over 60 years	Total
<i>Diseases of Arteries and Valves :</i>					
Aneurism ... ..	—	2	12	3	17
Arterio-Sclerosis and Atheroma ... ..	—	—	3	12	15
Coronary Thrombosis ... ..	—	1	9	18	28
Mitral and Aortic Incompetence ... ..	1	1	—	1	3
Other Diseases of Arteries and Valves ... ..	—	7	13	25	45
<i>Diseases of the Heart :</i>					
Auricular Fibrillation ... ..	—	—	—	1	1
Pericarditis ... ..	—	—	—	1	1
Myocarditis ... ..	1	1	12	27	41
Myocardial Degeneration ... ..	—	1	5	56	62
Endocarditis ... ..	2	—	—	2	4
Other Cardiac Diseases ... ..	1	9	29	59	98
Total ... ..	5	22	83	205	315

## CANCER AND OTHER MALIGNANT DISEASES

Like the deaths attributable to cardiac and vascular diseases, deaths from cancer and other malignant diseases continue to increase and more and more returns listing these diseases as causes of death are being received with each succeeding year.

Though the rise cannot be considered a steep one, it would appear that the rise is significant from a statistical point of view.

Greater diagnostic accuracy and the lengthening expectation of life may be responsible for the larger number of deaths due to these diseases, but undoubtedly there are other causes of which we are absolutely ignorant at the moment.

Research continues, but so far with little success.

The only hope at the moment seems to be a greater appreciation of the severity of these diseases, of their high mortality which amounts practically to one hundred per cent., and of the fact that early diagnosis and treatment are the only means whereby the disease can be kept under control.

Any suspicious lump or indolent ulcer in any part of the body should at once be brought under the care of a doctor with a view to early diagnosis and, if necessary, appropriate treatment either by surgery, X-ray, or radium.

Deaths from Cancer and other Malignant Diseases—1918-51

Period	Deaths	Rate per 1,000 population
<i>Yearly Averages :</i>		
1918-22 ... ..	44.4	0.67
1923-27 ... ..	45.6	0.71
1928-32 ... ..	44.6	0.65
1933-37 ... ..	556.8	0.76
Average 1918-37 ... ..	47.9	0.70
<i>Yearly Average 1938-42 ... ..</i>	75.4	0.82
1943 ... ..	88	0.86
1944 ... ..	84	0.81
1945 ... ..	80	0.75
1946 ... ..	79	0.78
1947 ... ..	75	0.78
1948 ... ..	87	0.88
1949 ... ..	91	0.90
1950 ... ..	93	0.89
1951 ... ..	101	0.94



## Cancer and other Malignant Diseases—Forms, Sites and Deaths—1951

Forms and Sites	DEATHS	
	Males	Females
<i>Carcinoma :</i>		
Throat, Larynx, Lung ... ..	4	3
Tongue, Oesophagus, Stomach ... ..	16	10
Liver, Pancreas, Intestines ... ..	4	13
Peritoneum, Colon, Rectum ... ..	3	6
Breast, Vulva, Ovary, Uterus ... ..	—	31
Bladder ... ..	2	2
Penis, Prostrate ... ..	2	—
Site not stated ... ..	—	2
<i>Epithelioma :</i>		
Scalp ... ..	1	—
<i>Sarcoma :</i>		
Bladder, Prostate ... ..	2	—
Total ... ..	34	67

## SANITARY ADMINISTRATION

## Staff

In my last report I lamented the fact that the additional staff that I had asked the Council to provide as being the absolute minimum necessary for the efficient running of the Department had not been forthcoming though the necessary provisions had been made in the Estimates.

The Estimates, however, had been approved by the Legislature too late in the year to enable the additional men to be recruited.

The position has however, righted itself, and the Department has now its full complement, except for one post of Sanitary Inspector and three posts of Health Visitors which are still vacant.

The additional staff was recruited in the second quarter of the year under report from candidates who had taken the Sanitary Inspectors course the year before, i.e., in 1950, and were successful in getting the Certificate of the Royal Sanitary Institute.

The full complement of workers attached to the Public Health Department now total 184, of which 46 are on the pensionable and 138 on the non-pensionable staff.

The Sanitary Inspectors who numbered 20 since 1920 now number 31, an addition of 11, but of these latter only 10 have been recruited; the eleventh vacancy is now being filled by a retired Sanitary Inspector who has been recalled to duty, there being at the moment no suitable and qualified Sanitary Inspector to fill the vacancy.

There are three vacancies for Health Visitors but there are no suitable and qualified Health Visitors to fill these vacancies; all the Health Visitors who were successful at the last examination held in 1950 are now in the employ of Government; in fact, they were previously employed by Government and were given the necessary time and facilities to take the course leading up to the Health Visitors' Certificate of the Royal Sanitary Institute.

The City is now divided into 18 sanitary districts with a Sanitary Inspector in charge of each. The number of premises in these districts varies but averages between 190 the lowest and 1,230 the highest depending upon the location, size of premises, types of building, &c.

The Sanitary Inspector is in complete charge of all the sanitary services in his district; in fact, he is, in a sense, the Medical Officer of Health of his district and is answerable to the Chief Sanitary Inspector and to the Head of the Department for the health and sanitary state of his district.

Sanitary control of these smaller districts can now be more easily effected; the Sanitary Inspector is expected to do at least 25 house-to-house inspections a day and to inspect each and every premises in his district at least once in five weeks.

Besides the 18 Districts Sanitary Inspectors, 7 others are employed in the execution of specific duties of a special nature as follows :—

- (1) One for the inspection of buildings, reporting upon building plans, layouts, specifications, completion certificates, &c., the inspection of buildings in the course of erection to ensure the provision of the necessary open spaces and the placing of the sanitary conveniences on the sites shown in the plans and their proper and efficient construction, the drafting and preparing of charts, graphs, and diagrams for annual reports and departmental use, &c., &c.,
- (2) Another does (a) the collection of daily samples of the City's mixed water supply and the taking of bi-weekly and, if necessary, daily samples at the several river and well sources of this supply; (b) the patrolling of the various catchment areas of the river and well sources of water supply to see that the bye-laws for the protection of these sources are not contravened; (c) the investigation, taking of necessary action, and reporting upon any matter considered urgent by the Medical Officer of Health and the Chief Sanitary Inspector.
- (3) A third does (a) the preparation, mapping out and the supervision of the work of the anti-rat unit; (b) the investigation of and reporting upon, all cases of notifiable infectious diseases, the supervision of the Unit engaged in the disinfection and disinfection of premises, including theatres, common lodging houses, &c.



- (4) Two Sanitary Inspectors are posted in the Wharf Area to examine consignments of food-stuffs on their arrival at the Port-of-Spain Wharves and before they are distributed to the City and thence to other parts of the Colony.
- (5) One Inspector inspects the food supplies, food stores and shops, reports and checks upon food handlers, itinerant vendors, &c., to secure their registration and the registration of food shops, parlours, restaurants, &c.
- (6) One Inspector prepares plans, and maps out, and supervises the work of the anti-mosquito unit and the anti-rabies unit.

There are two overseers; one is in charge of the anti-mosquito unit which comprises 2 checkers, 1 recorder, 6 supervisors, 27 aedes inspectors, 9 men in a clearing unit, 4 men in a ladder unit, 5 men in an oiling unit and 2 general mosquito inspectors; the other is in charge of the anti-rat unit which comprises 1 timekeeper, 1 checker, 8 drivers, 26 trappers, 2 yardmen and 1 office attendant.

The 6 men employed in disinfecting and disinfecting premises work under the direction and supervision of the Sanitary Inspector in charge of the anti-rat and disinfection unit; the operations of 6 others, the anti-bat unit, are directed and supervised by the Sanitary Inspector in charge of the anti-mosquito unit.

The caretaking and maintenance of the Public Conveniences, a service transferred from the City Engineer's Department to the Public Health Department in 1943, is carried out by 7 men.

I have already stated in a previous annual report that additional responsibility entailing care, control, and supervision was added to the Department when the Unit maintained by the Corporation for the emptying of cesspits, cesspools and "septic tanks" was transferred from the City Engineer's Department to the Public Health Department in 1947.

The Unit comprises one checker, two chauffeurs, 13 cleaners in two gangs, and a cooper and a yard man stationed at the Mucurapo Pumping Station where the night soil is disposed of, and it works under the direction, care, and control of the Supervisor of Cesspits.

Actually the outdoor staff comprised in the year under report 25 Sanitary Inspectors, 1 Supervisor, 2 Overseers and 137 miscellaneous workers on the non-pensionable staff all under the direction, care, control and supervision of the Chief Sanitary Inspector.

The indoor staff which takes care of the purely clerical activities of the Department, in so far as they affect correspondence, verbal and written reports, the preparation of the monthly, quarterly and annual reports, the issuing of licences, badges, certificates of registration, and which is also concerned with the compilation of vital statistics, the keeping of the financial records of the Department and the various books, registers and minutes, &c., comprise 3 Sanitary Inspectors, 2 Clerical Assistants, 1 Scientific Assistant, 1 Steno-typist, 1 Typist, 1 Messenger and 1 Office Attendant, all under the direction, care, control, and supervision of the Chief Clerk.

Premises, &c., Disinfected for Infectious Diseases and Vermin—1951

Diseases									Premises sprayed
Pneumonia	...	...	...	...	...	...	...	...	61
Tuberculosis	...	...	...	...	...	...	...	...	107
Enteric Fever	...	...	...	...	...	...	...	...	33
Diphtheria	...	...	...	...	...	...	...	...	36
Puerperal Fever	...	...	...	...	...	...	...	...	—
Ophthalmia Neonatorum	...	...	...	...	...	...	...	...	4
Chicken Pox	...	...	...	...	...	...	...	...	81
Poliomyelitis	...	...	...	...	...	...	...	...	—
Cerebro-Spinal Fever	...	...	...	...	...	...	...	...	—
Total									322
Vermin	...	...	...	...	...	...	...	...	183

15,347 Cesspits were sprayed with a mixture of crude and distillate oils (free of charge) as a routine measure of prevention against spread of the bowel-filth diseases.

Inspection of Premises, &c., by Sanitary Inspectors—1951

Average Monthly No. of Visits to Dwellings, Shops and other Premises ... 8,538

Inspection of Stores, Shops, &c.

				Average Monthly No. of Visits					Average Monthly No. of Visits
Provision and Meat Shops	...	...	...	142	Sweet Drink Carts	...	...	...	20
Provision Stores	...	...	...	38	Dairies and Cowsheds	...	...	...	26
Restaurants and Cookshops	...	...	...	68	Stables	...	...	...	21
Bakehouses	...	...	...	21	Goat Pens	...	...	...	71
Bread Depots	...	...	...	9	Aerated Water Factories	...	...	...	5
Cake and Ice Cream Shops	...	...	...	162	Soap Factories	...	...	...	4
Fry Shops	...	...	...	11	Other Factories	...	...	...	33
Hotels	...	...	...	8	Schools	...	...	...	27
Markets	...	...	...	3	Common Lodging Houses	...	...	...	6
Spirit Shops	...	...	...	40	Barber Shops	...	...	...	26
Ice Cream Carts and Pails	...	...	...	49	Dyeworks	...	...	...	1
Cake Trays and Baskets	...	...	...	87	Laundries	...	...	...	19
Provision Trays and Baskets	...	...	...	148	Garages	...	...	...	27
Bread Carts and Baskets	...	...	...	6	Tanneries	...	...	...	2
Fresh Fish Trays	...	...	...	10	Public Urinals	...	...	...	6
Oyster Vendor's Baskets	...	...	...	2	Boats	...	...	...	8
Plantain Carts	...	...	...	1					



## Results of Notices and Verbal Directions—1951

	Constructed, installed or provided	Repaired	Cleansed	Painted	Elimi- nated	Lime- washed	Oiled
Yard pavements ... ..	74	231	—	—	—	—	—
Depressions in yards ... ..	—	—	—	—	337	—	—
Yards ... ..	—	—	3,710	—	—	—	—
Drains, sinks, gullies, washing troughs, &c. ... ..	292	731	3,622	—	—	—	—
Lavatories, sewer basins, flushtanks, urinals, bath rooms, &c. ... ..	155	257	1,410	—	—	—	—
Privies ... ..	200	1,071	3	—	—	497	—
Cesspits ... ..	102	221	2,337	—	—	—	154
Manure Heaps ... ..	—	—	—	—	995	—	—
Rat Holes ... ..	—	—	—	—	152	—	—
Tree Shade, Overgrowths of bush ... ..	—	—	—	—	1,768	—	—
Dustbins ... ..	1,045	163	317	—	—	—	—
Dustbin covers ... ..	496	—	—	—	—	—	—
Shops, Parlours, Restaurants, Bakehouses, Hotels, &c. ... ..	—	181	2,602	406	—	329	—
Aerated Water Factories ... ..	—	—	31	—	—	5	—
Bread Carts ... ..	—	—	—	2	—	—	—
Barracks, Common Lodging Houses ... ..	—	99	44	38	—	36	—
Garages, Kitchens ... ..	—	184	—	2	—	112	—
Cowsheds, Stables ... ..	—	25	144	—	—	28	—
Tanneries, Soap Factories, &c. ... ..	—	—	—	—	—	—	—
Close-boarding, Ventilation of Houses ... ..	6	—	—	—	—	—	—
Barber Shops and other Workshops ... ..	—	—	51	14	—	—	—
Schools ... ..	—	1	—	—	—	—	—

## Reports to Water and Sewerage Department—1951

<i>Reports</i>	<i>Total</i>
Leaks, defective taps, chokes, &c. ... ..	...2,696

## Anti-Rabies Measures—1951

## TRAPPING, &amp;c., OF BATS

No. of locations inspected for roosts of bats ... ..	...12,611
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## BATS CAUGHT

Artibeus ... ..	... 183
Desmodus ... ..	... —
Hemiderma ... ..	... 58
Molossus ... ..	... 32
Noctilio Leporinus ... ..	... —
Saccopteryx... ..	... —
Myotis ... ..	... —
	... *273

\*Besides these, 18 Hemiderma were caught in adjacent districts outside the City limits.

## Building Plans, &amp;c.—1951

Reports made by the Public Health Department were as follows :—

On plans, &c., for reconstruction of reconditioning of buildings ...	977
On applications for leases of land in Woodbrook and Gonzales Place	92
On premises in which building operations were in progress ...	271
On application for certificates of completion of buildings ...	133

## Cleansing of Privies, &amp;c.—1951

Under the Public Health Ordinance, Ch. 12. No. 4, Section 64 (1) (c), Cesspits, Cesspools and Septic Tanks were cleansed as follows :—

East Dry River ... ..	1,098
Belmont ... ..	696
St. James ... ..	345
Woodbrook ... ..	198
	2,337
Out Districts ... ..	—

Outstanding cesspits up to 31st December, 1951 numbered 71

Average cost per cesspit emptied : \$13.73

## Prosecutions—1951

<i>Offences</i>	<i>No. of Cases</i>	<i>Results Total Fines, &amp;c.</i>
Failing to comply with nuisance notices ...	6	Fined \$150.00
	19	Reprimanded
	2	Withdrawn
	5	Dismissed
	<hr/> 32	
Breaches of Sale of Foodstuffs Bye-laws ...	34	Fined \$246.00
	3	Reprimanded
	1	Withdrawn
	3	Dismissed
	<hr/> 41	
Breaches of Sale of Milk Bye-laws ...	2	Fined \$20.00
	4	Withdrawn
	<hr/> 6	
Failing to comply with Prohibition Order ...	1	Dismissed
GRAND TOTAL ...	<hr/> 80	

## Summary

42	...	...	...	...	Fined \$416.00
22	...	...	...	...	Reprimanded
7	...	...	...	...	Withdrawn
9	...	...	...	...	Dismissed
<hr/> 80					

## Leave of Absence—1951

<i>Officers</i>	<i>Vacation Leave No. of days</i>	<i>Sick Leave No. of days</i>
Babb, F.—Sanitary Inspector ...	—	17
Carpette, O.—Overseer ...	28	14
Forde, O. E.—Chief Sanitary Inspector ...	184	—
Holdip, M.—Sanitary Inspector ...	—	12
Howard, J. R.—Sanitary Inspector ...	70	—
Joseph, A.—Messenger ...	21	—
Mitchell, T. M.—Chief Clerk ...	42	147
Mohammed, F.—Sanitary Inspector ...	—	5
Parris, J. E.—Overseer ...	—	7
Parris, J. W.—Acting Sanitary Inspector ...	14	24
Rivers, F. B.—Sanitary Inspector ...	—	4
Romain, A. B.—Sanitary Inspector ...	63	7
Seon, F. E.—Sanitary Inspector ...	42	7
Thomas, F. A.—Sanitary Inspector ...	—	14
	<i>Special Leave</i>	
Boucaud, R.—Sanitary Inspector ...	14	
Marcano, Dr. R. G.—Medical Officer of Health ...	46	



**FINANCIAL**  
**Revenue and Expenditure 1949-51**

			<b>Revenue</b>		
			<b>1949</b>	<b>1950</b>	<b>1951</b>
Revenue collected by the Public Health Department	...	...	\$691.31	\$812.10	\$683.00
			<b>Expenditure</b>		
Staff (Salaries, including War Bonus)			\$54,055.84	\$58,576.49	\$73,239.81
Labour (Wages, including War Bonus)			55,580.01	60,682.47	80,492.51
Materials, maintenance, &c.	...		9,974.85	9,942.32	17,303.04
			<hr/>	<hr/>	<hr/>
			\$119,610.70	\$129,201.28	\$171,035.36
Disposal of Night Soil	...	...	5,543.74	6,274.28	6,481.83
Emptying of Cesspits	...	...	20,826.21	24,361.54	*32,085.20
			<hr/>	<hr/>	<hr/>
			\$145,980.65	\$159,837.10	\$209,602.39
Extraordinary (Arrears of Salary and War Bonus, Regrading, &c.)	...		4,429.34	—	—
Extraordinary (Study Leave Allowances)			—	—	2,021.84
			<hr/>	<hr/>	<hr/>
Total	...	...	\$150,409.99	\$159,837.10	\$211,624.23

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\* Emptying of Cesspits—Amount recoverable from house-owners ... \$14,615.00

**Acknowledgment**

Another year has flown past and as I come to the end of yet another annual report, I cannot fail to think of the men who have stood by and worked with me during the year under report, men who high and low, have the welfare and prestige of this Department at heart, who are sensible of the great responsibility that is theirs, and who, one and all, have put their shoulders to the wheel to render a public service which can be considered the supreme of all services, i.e., that of maintaining the health and sanitation of the Urban Sanitary District, without which all other services would be a nullity.

Under the guidance and direction of Mr. O. E. Forde, Cert. R. San. I., the Chief Sanitary Inspector and Mr. T. M. Mitchell, Cert. R. San. I., the Chief Clerk, who continue to set the example of hard, efficient and conscientious work, they have been able to pull their weight admirably and always to work a little harder and stay a little longer, whenever that became necessary.

For this I am deeply grateful and I seize this opportunity again to commend their services to the favourable notice of the Local Authority.

Finally, whilst appreciating their work, I am not unmindful of the disabilities that they suffer as compared with Sanitary Inspectors and other workers in the employ of the Central Government and once more I am to request the Local Authority to make haste to provide these facilities and amenities that will make the staff of the Public Health Department a satisfied and contented staff, willing and anxious, as always, to continue to give of their best and to stay until the end of their working days in the service of the Local Authority.





